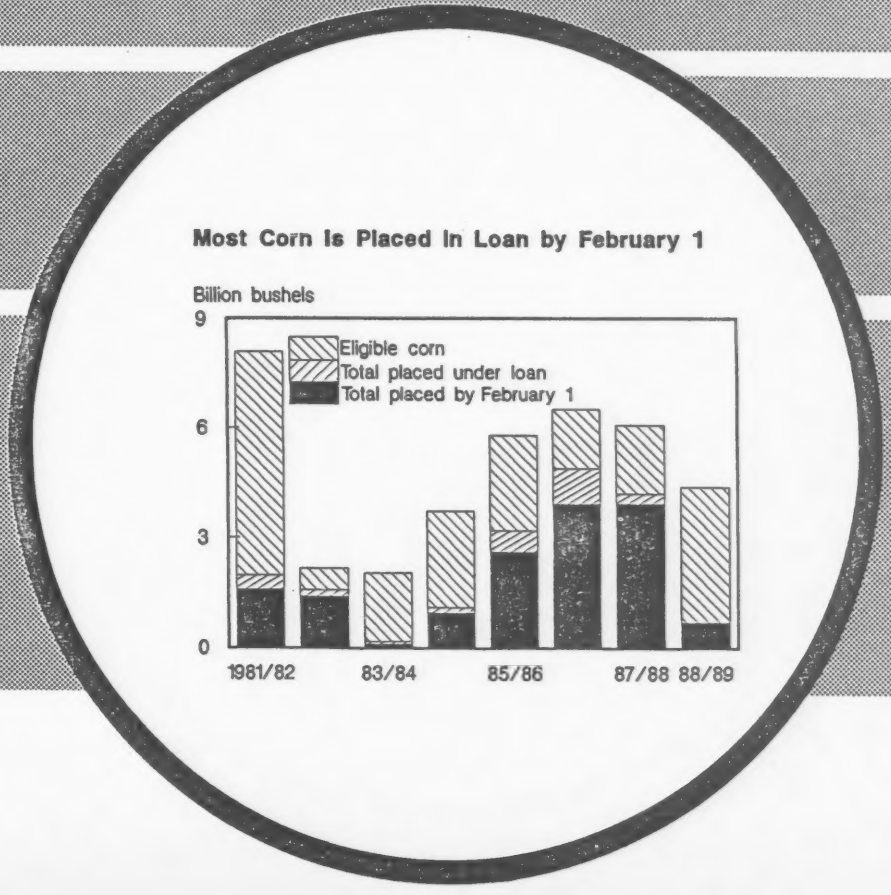
United States
Department of
Agriculture

Economic
Research
Service

FDS-309
February 1989

Feed Yearbook

Situation and Outlook Report



Feed Situation and Outlook, Commodity Economics Division, Economic Research Service, U.S. Department of Agriculture, February 1989.

CONTENTS

	Page
Feed Grain Supply and Use	4
Corn	4
Sorghum	6
Barley	7
Oats	8
Hay	9
Feed Demand	10
Food, Seed, and Industrial Use of Corn	10
World Coarse Grain Outlook	11
Special Article	
Market Exchange Economies and Other Factors in the Growth of Crop Farms	17
List of Tables	24

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Approved by the World Agricultural Outlook Board. Summary released February 24, 1989. The next summary will be released May 25, 1989. Summaries and full Situation and Outlook Reports, including tables, may be accessed electronically. For details, call (202)447-5505.

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Summary

The aggregate feed grain supply for 1988/89 is 284.1 million metric tons, 23 percent less than that available in 1987/88. The beginning inventory totaled 133.6 million tons, 12 percent below the 1987/88 record. Production, estimated at 149.2 million tons, fell 31 percent, primarily because last summer's severe drought cut average yield to 1.86 tons per acre, compared with 2.48 tons per acre a year earlier. Area harvested declined 6.5 million acres.

Farm prices for feed grains, weighted by total use, will average a little over $100 per metric ton this year, up more than 30 percent from 1987/88. However, disappearance of feed grains may dip only 4 percent to 226.2 million tons. Feed and residual use is expected to fall 10 percent, but this will probably be largely offset by a 12-percent expansion in exports to 58.9 million tons. Exports, mostly corn, will be the largest since 1981/82. Ending stocks will drop almost 60 percent to 57.9 million tons, but will still be 18.3 million above those for 1983/84.

This year's corn supply is almost 9.2 billion bushels, down almost one fourth from 1987/88. Beginning stocks were nearly 4.3 billion bushels, down 13 percent from the year-earlier record of 4.9 billion. Production is estimated at 4.9 billion bushels, down 30 percent. The drought reduced yield to 84.6 bushels per acre, compared with a record high of 119.4 a year earlier. The area harvested for grain was down 1 million acres even though the area planted was up 1.9 million.

The corn price received by farmers this year will be up about one third; however, disappearance is forecast to drop about 2 percent. Feed and residual disappearance may fall 9 percent, but will largely be offset by a 15-percent gain in exports. Ending stocks may drop about 60 percent to less than 1.7 billion bushels.

First quarter disappearance of corn was 2.1 billion bushels, 3 percent less than a year earlier. Feed and residual disappearance declined 10 percent, but exports rose about 20 percent. Certificate exchanges, mostly from CCC, FOR, and special producer storage loan stocks, totaled about 263 million bushels, the smallest exchange in the past 9 quarters.

A smaller acreage reduction program, no paid land diversion option, and the probability of a lower participation rate will decrease corn base idled by Government programs in 1989 and boost corn plantings. Gains in planted area and a rebound in yield will lead to a sharp increase the 1989 corn crop.

The supply of sorghum for 1988/89 is 1.2 billion bushels, 16 percent less than a year earlier. The beginning inventory was 663 million bushels and production was 578 million. Disappearance is forecast at 810 million bushels, down only marginally because of expanding exports.

Barley supplies for 1988/89 are down about 30 percent from a year ago. Yields and harvested acres fell 27 and 25 percent, respectively. Total use is projected at 465 million bushels, down 93 million from a year earlier, with most of this decrease attributed to smaller exports.

The 1988 oats crop of 219 million bushels is the smallest on record. The drought-reduced crop and tight beginning stocks will likely boost imports to 60 million bushels. Total use may decline almost one third from 1987/88.

The 1988/89 hay supply totaled 154.1 million short tons, 27.3 million in beginning inventory and 126.8 million in production. December 1, 1988 hay stocks amounted to 90.9 million tons, 29 million less than a year earlier, and 1.4 million less than use from December 1987 through April 1988. Thus, hay use this winter will decline, and ending stocks next May will be down sharply. The tight supply is causing record-high prices.

Feed and residual use of corn, sorghum, and barley may show declines of 7 to 9 percent, while oats may plummet 40 percent. The index of grain-consuming animal units (GCAU's) is nearly the same as last year. However, history indicates little consistent relationship between GCAU's and feed and residual disappearance in drought years.

Food, seed, and industrial use of corn is forecast to be down slightly from a year earlier. Wet millers are expected to use a little more while dry millers will use less. Corn use in sweeteners will likely rise about 4 percent.

World coarse grain consumption is expected to exceed production by a wide margin in 1988/89, resulting in a record stock drawdown. However, beginning stocks reached the second-highest level ever. Reflecting tighter world market conditions, export prices have surged above those of last season.

World trade in coarse grains is making a striking recovery in 1988/89 from the stagnant levels of the previous 3 years. Trade will likely increase 14 percent over 1987/88, but near-

ly all of the gain can be attributed to the Soviet Union. Although the volume of U.S. exports is forecast to rise significantly, foreign exports will probably make still larger gains. This implies a small erosion of the U.S. market share in 1988/89, but it will be the second-highest share in the past 7 years.

Feed Grain Supply And Use

The feed grain supply for 1988/89, on an aggregate crop year basis, is estimated at 284.1 million metric tons, down 23 percent from a year earlier. Beginning stocks of 133.6 million tons were about 13 percent below year-earlier stocks of 152.1 million. Production, estimated at 149.2 million tons, is down 30 percent. The area harvested was down 7.5 percent, but the severe drought of 1988 reduced yields 25 percent to 1.86 tons per acre from 2.48 tons per acre in 1987. Imports, largely of oats and barley, are expected to total 1.3 million tons for this year, adding about 200,000 more tons to supply than they did in 1987/88.

Although beginning stocks for 1988/89 were down from a year earlier, they are still the second-largest beginning stocks on record. The price for feed grains, weighted by use, will likely average a little over $100 per metric ton, compared with $76.76 per ton in 1987/88, an increase of nearly 30 percent. However, use is projected to total 226.2 million tons, a drop of 4 percent from last year's disappearance of 234.9 million tons. Feed and residual disappearance accounts for most of the 8 percent decline in domestic use, as only a negligible drop is expected in food, seed, and industrial use (FSI). Exports, however, are expected to be up about 6.3 million tons from last year's shipments of 52.6 million.

Based on expected disappearance, ending stocks would fall to 57.9 million tons--the largest one-year decline on record. Ending stocks would be the lowest since 1984/85 but almost 50 percent larger than for 1983/84.

A more consistent set of market factors apply if a June-May feed year is used. The June-May supply for 1988/89 totals 328 million tons, 20 percent less than the year-earlier supply of 408.3 million. June 1, 1988 stocks totaled 177.4 million tons, 8 percent less than the amount on hand June 1, 1987. Production is the same as for the aggregate crop-year basis, 149.2 million tons, and imports are expected to total about 1.4 million.

Corn

The corn supply for 1988/89 is estimated at almost 9.2 billion bushels. Carryin stocks approached 4.3 billion bushels and the 1988 crop was reported at 4.9 billion in the *Crop Production—Annual Summary* released January 13, 1989. Imports will add about 5 million bushels to supply. The 1987/88 supply was almost 12 billion bushels and was comprised of almost 4.9 billion bushels in carryin stocks, nearly 7.1 billion in production, and 4 million in imports.

The corn crop was estimated at 4.46 billion bushels based on conditions around September 1. Much of the Corn Belt received beneficial rains in September and October. Improvement in corn crop prospects then became apparent, as reflected in the crop estimates of 4.55 and 4.67 billion bushels in the October and November *Crop Production* reports.

The *Crop Production—Annual Summary* issued in January was based on the quarterly agricultural survey taken the first half of December 1988. The survey demonstrated that yields per acre were higher, harvesting losses were lower, and corn for grain was harvested from more acres than expected. These findings explain the increase in the corn crop reported in the *Annual Summary* over the estimate in the November *Crop Production* report.

Estimates of area, yield, and production of corn

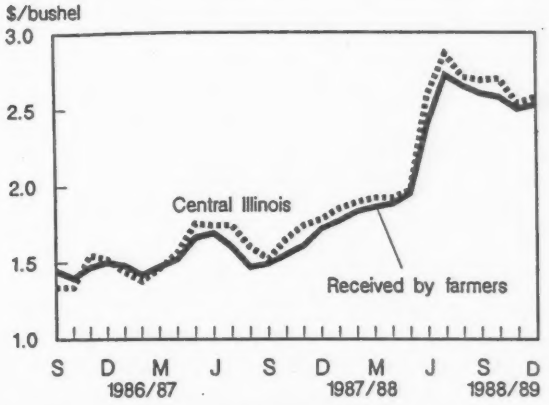
Month	Indicated area harvested	Estimated yield	Indicated production
	mil. acres	bu/acre	mil. bu.
September	56.8	78.5	4,462.5
October	56.7	80.2	4,552.7
November	56.7	82.3	4,671.2
January	58.2	84.6	4,921.2

The 250-million-bushel rise in supply of corn has been accompanied by changes in the outlook for its use. The export forecast was increased by 225 million bushels and FSI use by 10 million since the November *Feed Situation and Outlook* report. However, a 200-million-bushel drop in expected feed and residual disappearance to 4.3 billion bushels offset most of these gains. The net outcome was a gain of 35 million bushels in total disappearance and a rise of 215 million bushels in ending stocks.

The outlook for larger ending stocks reduces the need to trigger the Farmer Owned Reserve (FOR) and the upward pres-

sure on corn prices. The price of corn will likely rise seasonally until early July as weather conditions and crop prospects become increasingly important market factors. In late January, subsoil moisture was low in parts of Illinois, Iowa, Missouri, Minnesota, and South Dakota. Timely rains during the planting and growing seasons could produce normal yields. Thus, the market will depend on growing conditions in the spring and early summer. Favorable weather through the pollenation period would result in prices falling during late July and August, but adverse growing conditions would hold prices steady to strong through the summer.

Monthly Average Corn Prices



Exports up, Feed and Residual Use Down In First Quarter Disappearance

Disappearance during the September-November quarter totaled 2.1 billion bushels, 3 percent less than the use of almost 2.2 billion a year earlier. Exports surged almost 20 percent to 481.5 million bushels, but feed and residual disappearance of a little over 1.3 billion dropped more than 10 percent. FSI use of 289 million bushels declined by 3 million.

Nearly 7.1 billion bushels of corn were on hand December 1 in farm and off-farm storage. About 1.7 billion bushels were tied up in CCC inventory, the FOR, and special producer storage loans (SPSL), leaving about 5.4 billion bushels in 9-month loans and unencumbered stocks. However, at current prices, most of the corn under regular loans would be readily available to the market.

Disappearance for the 1988/89 crop year is estimated at 7.5 billion bushels; with 2.1 billion used during the first quarter, about 5.4 billion will be used the remainder of the year. It therefore appears that market needs are about the same as uncommitted stocks on December 1, which implies no free stocks available for pipeline needs. However, a number of factors may make some CCC and FOR/SPSL stocks available to the market during the year, such as use of CCC stocks to meet disaster relief obligations, generic certificates exchanges, sale of CCC acquisitions that are no longer of storable quality, and rotation of FOR stocks next summer. Consequently, the FOR may not have to be triggered to meet market needs.

Corn supply and disappearance, Sept.-Nov.

Item	1987/88	1988/89
Supply	-- Million bushels --	
Stocks Sept. 1	4,881.7	4,259.1
CCC	1,443.2	835.0
FOR	1,497.7	1,126.8
Loan	2,102.3	928.6
Free	-161.5	1,368.7
Production	7,072.1	4,921.2
Imports	0.6	0.7
Total	11,954.4	9,181.0
Disappearance		
FSI	292.0	289.0
Exports	398.0	481.5
Feed and residual	1,493.4	1,339.6
Total	2,183.4	2,110.1
Ending stocks Dec. 1	9,771.0	7,070.9
CCC	1,683.4	611.0
FOR	1,494.2	1,077.4
Loan	2,841.5	747.9
Free	3747.8	4,634.6

By November, farmers had purchased only a small amount of corn out of CCC stocks under the Emergency Feed Assistance Program (EFAP), which permits eligible farmers to buy feed grains from CCC inventory at 75 percent of the county loan rate. Farmers have until March 31 to apply for assistance under disaster relief programs.

Generic Exchanges Decline

Generic certificate exchanges for corn equaled 263.5 million bushels for the September-November quarter--the smallest amount of corn freed up with certificate exchanges in 9 quarters. The reduced availability of generic certificates has decreased their importance. However, at current prices farmers can profitably redeem 9-month loans for cash, and so farmers probably would not use certificates for regular loan redemption if they had more in hand. Exchanges for 9-month loans accounted for only 11.5 million bushels of total exchanges for the quarter. At 216.4 million bushels, corn in the CCC inventory comprised the main exchange activity. FOR/SPSL loans were the source of 35.6 million bushels of certificate exchanges.

During December and January, another 166 million bushels of corn were made available to the market via certificate exchanges. These included 120 million bushels from CCC stocks, 41 million from FOR/SPSL loans, and 5 million from 9-month loans. On February 1, a little over $300 million of generic certificates were outstanding. A small amount of cer-

Issue and use of generic certificates

Crop year	Value 1/ issued	Value 1/ exchanged	Value used 1/ for corn	Bushels of corn
	- - Billion dollars - -			Million
1985/86				
Apr-Aug	1.7	.86	.47	252.6
1986/87				
Sep-Nov	1.1	.75	.48	343.8
Dec-Feb	3.1	1.35	1.09	750.9
Mar-May	2.3	3.40	2.62	1,641.0
Jun-Aug	1.3	.95	.75	436.1
1987/88				
Sep-Nov	4.5	2.81	2.08	1,334.1
Dec-Feb	3.4	3.70	2.46	1,261.8
Mar-May	2.7	2.78	2.08	1,141.7
Jun-Aug	1.3	3.56	2.98	1,156.9
1988/89				
Sep-Nov	1.2	.92	.66	263.5

1/ Values have been revised.

tificates become available from the Export Enhancement Assistance Program (EEP). On November 21 USDA announced that at signup, wheat and feed grain producers could request 40 percent of their estimated deficiency payments. These payments will be made in cash. The projected deficiency payment rates per bushel for wheat and the feed grains are: wheat, $.50; corn, $.89; sorghum, $.90; barley, $.23; and oats, $.00.

Feed Grain Acreage To Increase This Year

The 1988 corn program consisted of a 20-percent acreage reduction program (ARP), an optional 10-percent paid land diversion (PLD), and the 0-92 option. The corn base totaled 83.4 million acres, 86.9 percent of which complied with the program. Program participation resulted in 20.8 million acres of corn base diverted from corn production to conservation practices (14.6 in ARP, 3.2 in PLD, and 3.0 in 0-92). An additional 2.8 million acres of former corn base was in the long-term Conservation Reserve Program (CRP). Farms participating in the program planted 51.8 million acres to corn out of total plantings of 67.6 million acres. The nonparticipating base amounted to 10.8 million acres, and, assuming this was planted to corn, an additional 5.0 million acres outside the corn base were also planted to corn (67.6-51.8+10.8).

For the 1989 crop, the corn program includes a 10-percent ARP, the 0-92 option, and the opportunity to shift some plantable program base, including corn, to soybeans or sunflowers, providing the producer participated in a preliminary signup during December 19, 1988-February 3, 1989 USDA announced on February 10 that producers would be allowed to plant all of their requested sunflowers but only 80 percent of their requested soybean plantings on permitted crop acreage. In the special signup, farmers indicated intentions to plant a little over 3.5 million acres to soybeans and 353,265 to sunflowers. Because of the 80 percent limit, the actual planting to soybeans on permitted acres could not exceed 2.8 million acres.

The corn base may be slightly smaller this year if more of it is placed in the CRP. With corn prices this winter well above the loan rate ($1.77 for 1988/89), participation could be down from last year by 70 to 80 percent, depending on farmer's price expectations. Plantings could range from 75 to 80 million acres, depending on the amount of reduction in base, the participation rate, the amount of plantable base shifted to soybeans or sunflowers, and the area planted outside the base. Plantings at the upper end of the range imply a small reduction in base, a low participation rate, a maximum of 1 million acres shifted to soybeans and sunflowers, and plantings outside the base of 5 million acres.

Sorghum

The *Crop Production—Annual Summary* issued in January estimated the 1988 sorghum crop at 577.6 million bushels, down 161.7 million from 1987 and 360.6 million below 1986. Area harvested, at 9.1 million acres, declined 15 percent from 1987 because of smaller plantings and more acreage cut for silage. Reduced acreage and drought-stunted yields lowered sorghum production. Average yield for 1988 was 63.8 bushels per acre, down from the record 69.7 in 1987.

Total supply of sorghum for the 1988/89 crop year is 1,240 million bushels--577.6 million produced plus 662.7 million carryin. The sorghum supply has dropped 16 percent below 1987/88's 1,483 million bushels.

FOR, SPSL, and CCC inventory account for 533 million bushels of the supply for 1988/89. An additional 50 million

bushels were in 9-month loans and 79 million bushels were in free stocks. However, the price of sorghum is well above the loan rate, so grain in 9-month loans can be considered available to the market. Thus, supply readily available to the market amounts to 706 million bushels for 1988/89.

FSI use for sorghum in 1988/89 will likely decline 20 percent from the 24.9 million bushels used in 1987/88. Seed use may increase slightly, but food and industrial uses are expected to decrease because of higher prices. The distilled spirits industry normally uses only small quantities of sorghum. However, on rare occasions, this use has increased sharply for several months before returning to former levels. This pattern emerged in October 1984 through May 1985 and again in September 1985 through May 1986. Sorghum use in distilling climbed again in December 1987 and has continued at higher-than-normal levels through September 1988, the most recent month for which data are available. Sorghum prices are lower in relation to corn prices from last September to mid-February than they were from December 1987 to September 1988. Thus, sorghum use in distilling has probably continued above normal. Sorghum prices are expected to strengthen relative to corn prices as sorghum supplies tighten this spring, which may reduce distillation use to normal levels.

Exports of sorghum in 1988/89 are forecast at 275 million bushels, up from last year's 231.3 million. Based on the *U.S. Export Sales* report, shipments for September 1988 through February 16, 1989 totaled 138.3 million bushels, up 36.7 million from a year earlier. Also, outstanding sales on February 16 were up 38 percent from the same date last year.

Feed and residual use is estimated at 515 million bushels for 1988/89, down from 564 million a year earlier. Although the GCAU index has remained nearly the same as last year, higher prices are expected to reduce feed and residual use.

Total disappearance is forecast at 810 million bushels--100 million more than the readily available supply. The sorghum FOR probably will not be triggered unless corn is triggered, which is unlikely. However, some sorghum from the FOR, SPSL, and CCC inventory will be available to market by generic certificate exchanges. From September 1988 through January 1989, 97.2 million bushels of sorghum were exchanged from the FOR, SPSL, and CCC for generic certificates. Sorghum also may become available from the CCC through EFAP, cash sales by the CCC, and rotation of FOR stocks. Also, based on crop condition reports in the *Weekly Weather And Crop Bulletin*, an average of 20 percent of the sorghum crop is harvested before September 1.

Program Participation May Slip

In 1988, the sorghum program required producers to put 20 percent of their base in the ARP and included options of a 10- percent PLD and 0-92. Eighty-one percent of the sorghum base was enrolled in the feed grain program in 1988, 44 percent of the enrolled base also participated in the PLD option, and 1.1 million acres participated in the 0-92 option. Thus, 4 million acres of base were idled by Government programs in 1988.

In 1989, the program includes a 10-percent ARP and the 0-92 option, but no PLD. Also, program participation may decline due to the higher prices farmers have been receiving this year. These factors will likely boost the number of acres planted this year.

Barley

The *Crop Production—Annual Summary* placed the 1988 barley crop at 291 million bushels, 45 percent below 1987 and the smallest since 1953. Average yield of 38.6 bushels per acre was down 27 percent from a year earlier, and harvested acreage dropped 25 percent to 7.5 million acres. Imports for 1988/89 are estimated at 15 million bushels, up 1 million from the previous year. Imports totaled 6.1 million bushels through December 1988, 900,000 below the same period a year earlier. Total supply for 1988/89 is estimated at 627 million bushels, down from 879 million in 1987/88 and 944 million in 1986/87.

Total use in 1988/89 is projected at 465 million bushels, down 93 million from a year earlier. Smaller exports will probably cause most of the decline. Exports during the first quarter of 1988/89 remained strong, showing a 10-million-bushel increase over the corresponding period of the previous year. However, second-quarter exports fell about 30 million bushels compared with the same quarter a year earlier. Exports through the end of December reached 56 million bushels, but export activity for the remainder of the crop year is expected to be slow. Outstanding sales stood at 7.1 million bushels on February 16.

Feed and residual use of barley is forecast to drop 18 million bushels from 1987/88 to 240 million, but FSI use is projected to rise 1 million bushels to 175 million. Lack of growth in the food use of barley reflects high malting barley prices caused in part by the 1988 drought. The price at Minneapolis for grade 3 or better, 65% or better plump barley was $3.61 per bushel in June 1988 and reached $4.40 in December. The simple average price so far this year is $4.06 compared with $1.98 for the same period last year. Feed barley prices have not increased as dramatically as those of malting barley, largely because of the influence of corn prices on feed barley. The spread between malt and feed barley prices, which usually ranges from $.40 to $.60, has been above $1.50 for most of the year.

The average price received by farmers for all barley is projected to be between $2.80 and $2.90 a bushel, compared with $1.81 in 1987/88. Through January, the simple average of monthly prices was $2.79 a bushel. Farm-level feed barley prices have averaged $2.29 a bushel, up $0.64 over a year earlier; farm-level malt barley prices averaged $3.26 through January, up $1.17 over a year earlier.

Ending stocks for 1988/89 are projected to be 162 million bushels, about half of the 321 million on hand at the end of 1987/88. The projected ending stocks-to-use ratio for 1988/89 is about 35 percent, compared with 58 percent for 1987/88. Through the end of the second quarter (September-November), total barley stocks were 376 million bushels, with 36 million in CCC inventory, 22 million outstanding under loan, and 63 million in FOR/SPSL. Uncommitted stocks stood at 254 million bushels. By the end of January 1989, 35 million bushels were in the CCC inventory, 18 million were outstanding under loan, and 54 million were in the FOR/SPSL. Through the end of January, only 21 million bushels of the 1988 crop had been placed under loan, compared with about 120 million in each of the last 3 years. Uncommitted stocks are projected to decline to a little over 70 million bushels by the end of the crop year.

The barley program for the 1989 crop includes a 10-percent ARP, down from 20 percent for the 1988 crop. The target price is $2.43, and the loan rate is $1.34. These figures are down $.08 and $.10, respectively, from the 1988 levels. In 1989, there is no PLD provision. Malting barley producers will not be exempt from the acreage limitation requirements established for the program.

During the signup period, which runs from December 19, 1988 through April 14, 1989, producers may request 40 percent of their estimated deficiency payments. Payments will be in cash this year, and will amount to $.092 cents per bushel of barley based on a projected payment rate of $.23 per bushel.

An optional 0-92 program is available for the 1989 crop. Producers may devote all or part of their permitted acreage to conservation uses and receive deficiency payments on up to 92 percent of the permitted acreage. Deficiency payments would equal at least the announced payment rate of $.23 per bushel on program yields. Program participation in 1988 was 78 percent. Higher commodity prices, resulting in part from the drought last year, will likely reduce participation in 1989.

Oats

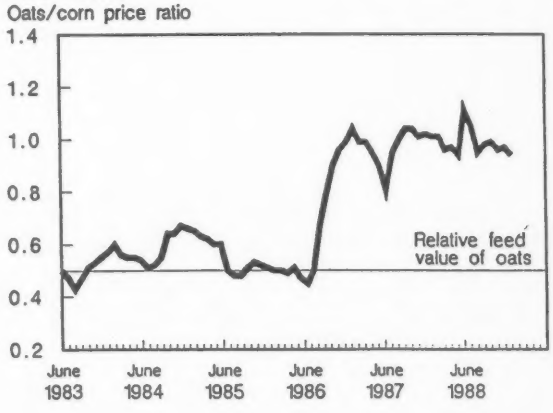
The 1988 oats crop is estimated at 219 million bushels, up from earlier estimates, but still the smallest crop since before 1866, when records were first kept. Production is estimated to be 42 percent below a year earlier. Yields and harvested area are also down. Harvested area declined to 5.6 million acres from 6.9 million in 1987, and estimated yields of 39.1 bushels per acre for 1988 are 28 percent below last year.

Imports for 1988/89 are projected at 60 million bushels, a 30 percent increase over 1987/88. Through the end of December 1988, imports amounted to 30.8 million bushels, compared with 17.9 million through the same period a year earlier. Beginning stocks of oats were 112 million bushels, and total supply for 1988/89 is projected to be 391 million, down 29 percent from 1987/88.

During the last 3 years, oat imports have risen in part because of poor yields. For example, in Minnesota, the last 3 years' yield has averaged 47 bushels per acre, compared with 63 for 1980-1985. Although there was a decrease in harvested acres over the same period, yield losses account for much of the reduced production.

Total use of oats continues to fall. Projected use for 1988/89 is 302 million bushels, down from 441 million for 1987/88 and 471 million for 1986/87. From 1975 to 1985, total use averaged 565 million bushels and never dropped below 500 million. Most of the recent decline has occurred in the feed and residual category, and can be attributed to the fact that oats prices have been high relative to corn prices. Projected feed and residual use for 1988/89 is 215 million bushels, down from 361 million in 1987/88. Feed and residual disappearance is about half of the level reached during the early 1980's. Projected exports of 1 million bushels are unchanged from 1987/88.

Relationship Between Farm Prices of Oats and Corn



FSI use of oats is projected to increase to 86 million bushels, 9 percent above 1987/88. Greater public awareness of the apparent health benefits of oats and oats products has heightened demand for food grade oats. Because current prices reflect both tight supplies and increased demand for food oats, it is unlikely that the oats/corn price ratio will soon return to a level corresponding to relative feeding values.

Ending stocks for 1988/89 are projected to tighten to 89 million bushels, with 2 million in CCC inventory and 87 million free. Through the end of January, there were 2.6 million bushels in CCC inventory, 600,000 in the FOR/SPSL, and 800,000 outstanding under loan. A total of 900,000 bushels of the 1988 crop had been placed under loan.

Monthly prices received by farmers averaged $2.58 a bushel for the first 7 months of the 1988/89 marketing year, $1.05 above the same period in 1987/88. Based on information on marketings in the *Agricultural Prices—Annual Summary*, just over 60 percent of the crop is usually marketed by the end of December. The season average price for 1988/89 is projected to range from $2.60 to $2.75 a bushel, compared with $1.56 in 1987/88.

The 1989 oats program has a 5-percent acreage reduction, as in 1988. The oats ARP is less than that of the other feed grains to encourage additional oats production. The target price is $1.50 per bushel and the loan rate is $0.85, compared with $1.55 and $0.90 for 1988. High prices relative to the target price have resulted in a zero estimated deficiency payment rate this year. There will be no PLD in 1989.

The 1989 program continues to combine oats and barley bases. All oats, all barley, or a combination of both can be planted on permitted acreage within combined acreage bases; program benefits will be received for the crop planted. This provision has been in effect since 1982. Limited cross-compliance restrictions do not apply to oats in 1989. This means that if a producer is willing to forego program benefits for oats, he or she may plant oats without restriction and still be eligible for benefits for other program crops.

A new program provision will allow oats to be substituted for any portion of the farm acreage base (excluding soybeans). Oats program requirements and benefits will apply to that acreage. The acreage planted to oats will be considered planted to the other crop to determine planting history. Under this provision, a substituted oats base does not increase permitted barley acreage.

The 1988 oats program had a participation rate of 30 percent. Relatively high prices, combined with few if any expected deficiency payments, probably will reduce program participation in 1989.

Hay

Hay production for 1988 was revised down 2.6 percent in January to 126.8 million short tons from the October estimate of 130.2 million. The area harvested turned out to be 1.2 million acres less than the October estimate, and the yield was reduced 1 percent, to 1.93 tons per acre. The revised production estimate for 1988 shows a decline of 22.5 million tons from a year earlier, 28.7 million from 1986's record 155.5 million, and the smallest production since 1976. Alfalfa and alfalfa mixture hay production was 69.3 million tons, down 15.5 million from 1987, and all other hay production (57.5 million tons) was 7 million below a year earlier.

With May 1 carryin hay stocks of 27.3 million tons, the total supply was 154.1 million for the 1988/89 May-April crop year, the smallest supply since 1977. In 1987/88, carryin stocks equaled 32.4 million tons, and the total supply was 181.7 million.

Silage production for 1988/89 also is down from a year earlier. Corn silage production in 1988 totaled 78.9 million short tons, down 5.5 million from the 1987 harvest. The area harvested expanded by 2.5 million acres, but the yield decreased 5 tons per acre. Producers probably harvested some drought-damaged corn for silage rather than grain. In addition, producers harvested 5.4 million tons of sorghum silage in 1988, up from 5.1 million a year earlier. Area harvested went up by 124,000 acres, but yields were down 2.3 tons per acre.

Roughage-consuming animal units (RCAU's) for 1988/89 number about 77.7 million, compared with 77.3 million last year. Accounting for this increase is a larger number of beef cows and dairy heifers that more than offset a smaller milking herd.

Hay stocks on December 1, 1988 were 90.9 million tons, compared with 119.8 million a year earlier, and the lowest since 1984. Disappearance for December 1987-April 1988 equaled 92.5 million tons--1.6 million more than stocks this past December. Consequently, use this winter and spring will be down from a year earlier, and ending stocks likely will approach or reach a record low. Weather will exert great influence on use for the balance of this crop year. An early spring would decrease the need for hay feeding and leave larger ending stocks. Conversely, a late spring would increase hay feeding, sharply reduce ending stocks, and put more upward pressure on hay prices.

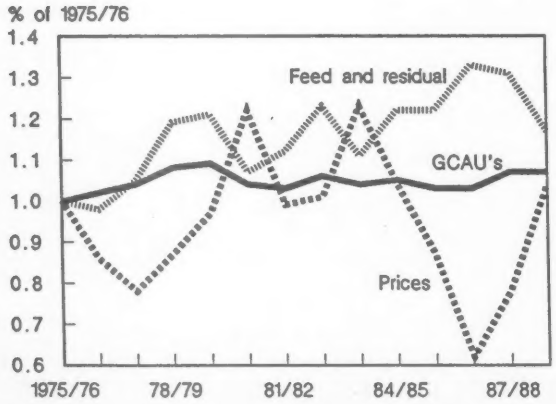
Hay prices during the marketing year have outstripped those of a year earlier. For May-November, the price received by farmers for all hay averaged $83.39 a ton, $18.77 above the corresponding period in 1987. For December 1988 and January 1989, prices have been even stronger, averaging $90.55 a ton, up $26.80 from a year earlier.

Feed Demand

The estimated 1988/89 feed and residual use of feed grains (corn, sorghum, barley, and oats) is down 14.7 million metric tons (10 percent) from a year earlier. The higher prices for feed grains induced by the drought have caused an expected decline in their use, although the index of grain-consuming animal units (GCAU's) shows a marginal decline of less than 1 percent. Corn, sorghum, and barley used for feed and residual will likely decline 7 to 9 percent. In September-November 1988, feed and residual use of corn fell 10 percent from a year earlier, slightly more than the decline of 9 percent expected for the full crop year. Oats use may decline 40 percent because oats' relative feeding value has priced oats out of many animal rations. In 1987/88, feed and residual disappearance of oats was down nearly 9 percent, while the four grains combined were nearly the same as a year earlier.

Based largely on animal inventories and expected production of hogs and poultry, projected GCAU's should remain fairly stable. Slight declines in the anticipated number of dairy cattle, cattle on feed, and laying hens should result in corresponding decreases in grain use. However, these will be partially offset by increased use for larger pork, broiler, and turkey production. The January 1 inventory in the *Cattle* report suggests that cattle herds will expand. The number of replacement heifers for dairy and beef herds were up from a year ago.

GCAU's, Prices, and Feed and Residual Use



Feed demand by the dairy sector should remain strong. In the 21 States reporting monthly, the number of cows declined 1 percent, but milk production per cow in January was 4 percent above last year. Concentrates fed per cow on January 1, 1989 were 17.1 pounds, down only slightly from 17.2 a year ago. The alfalfa hay price received by farmers in January was $98.30 per ton, up from $66.50 last year. Corn prices have increased by about the same amount, so producers have little incentive to change dairy rations.

The number of feeder cattle available for feeding on January 1 was down 2 percent from a year ago. This likely will hold placements on feed below those of last year. Thus, concentrate feed use for cattle will likely be down. Cattle may continue to be marketed at relatively heavy weights, but their reduced numbers will likely offset the slight additional feed per animal.

Feed use by the hog sector may exceed that of last year, at least through September 1989. Although high feed prices probably will keep net returns negative through the third calendar quarter, pigs already farrowed may keep feed use above last year.

The poultry sector's feed use in 1988/89 will probably rise because of increased numbers of broilers and turkeys. The number of layers has declined because negative net returns to egg producers have encouraged producers to sell older flocks. Egg production is expected to decline this year with the smaller laying flock. While the egg-laying flock will consume less feed, this will be more than offset by increased consumption by broilers and turkeys.

Food, Seed, and Industrial Use of Corn

Food, seed, and industrial (FSI) use of corn for the first quarter of 1988/89 was 289 million bushels, down slightly from 292 million in the first quarter of 1987/88. Relatively little change from a year earlier is expected through the end of 1988/89. Total use is forecast at 1,225 million bushels, down 4 million from 1987/88.

Although little change is projected in aggregate, corn used in wet-milling will probably increase 1 to 2 percent, and dry-milled corn use will likely decline 6 percent from 1987/88. Use of corn in high fructose corn syrup (HFCS), which accounted for almost 30 percent of FSI use of corn in 1987/88, was up almost 4 percent to 81.8 million bushels during the first quarter of 1988/89, compared with the same quarter the year before. Corn used in the production of HFCS is forecast at 375 million bushels and will remain up about 4 percent throughout 1988/89. While this is a moderate increase compared with the growth of the early 1980's, HFCS production likely will account for the largest increase in corn

use among individual FSI categories. HFCS price gains over the last year reflect higher net corn prices. Midwest prices for HFCS-42 currently average $.11 per pound, $.03 above February 1988.

Glucose and dextrose production used 49.8 million bushels of corn during September-November 1988, 4 percent more than the same period a year earlier. Glucose prices have leveled off in the past 3 months, following sharp increases in 1988 caused by rapidly rising net corn costs. Dextrose prices have remained unchanged since November 1988.

Starch production in September-November 1988 has risen nearly 3 percent to 40.6 million bushels from a year earlier. However, production for December 1988 declined 3 percent from December 1987. Corn used in starch production will likely remain the same in 1988/89 as a year earlier.

Corn used for dry-milled and alkaline-cooked products has remained fairly steady for several years. Projected use for 1988/89 is 165 million bushels, up 2 million from 1987/88. Lack of growth in this category is partly due to a steady decline in corn used in beer production. Brewers used 32.9 million bushels of corn in 1987/88, down 5 percent from the previous year, and the lowest level in the last 10 years. Use averaged 45 million bushels from 1975 through 1983, but has dropped off rapidly in the last 5 years. Cereal, flour, and corn meal production has partially offset decreased corn use in the brewing industry.

Corn use in ethanol production for the remainder of 1988/89 likely will be about the same as a year ago. However, uncertain corn prices, combined with changes in various States' legislative and regulatory treatment of ethanol, adds uncertainty to the forecasts. Higher corn prices caused at least temporary closing of several dry-milled alcohol plants. Blended ethanol sales for September 1988 through January 1989 were about 3.5 percent behind the same period a year earlier. However, some wet-milled capacity was added in 1988. The outlook for the remainder of 1989 and subsequent years depends on corn prices, tax and regulatory provisions for ethanol and ethanol products, and competition from methyl alcohol and petroleum products.

Future growth in FSI use of corn depends largely on the outlook for corn-based ethanol production. However, interest in new corn-based products that would provide significant new sources of demand for corn is growing. For example, it has been suggested that cornstarch-based road de-icer could use at least 50 million bushels of corn, and that biodegradable plastics could provide a market for another 100 to 200 million. Most of the current demand for corn-based plastics is due to legislation that requires products to be biodegradable.

World Coarse Grain Outlook

World coarse grain consumption is expected to outstrip production by a wide margin in 1988/89, resulting in a record stock drawdown. Reflecting tighter world market conditions, export prices have been running considerably above last season. In recent weeks, however, additional supplies indicated by revised U.S. production and use estimates have moderated prices.

World trade in coarse grains is making a striking recovery from the stagnant levels of the previous 3 years.[1/] Trade will likely increase 14 percent over 1987/88. Although the

1/All trade years referred to in this section are October-September and exclude intra-EC trade unless otherwise specified.

Corn: Food, seed, and industrial use 1/

Year beginning September 1	Wet-milled products				Dry-milled alcohol	Dry-milled and alkaline cooked products	Seed	Total
	HFCS	Glucose and dextrose	Starch	Alcohol				
	Million bushels							
1975	45	162	116	5	20	154	20	522
1976	62	164	116	10	15	155	20	542
1977	80	170	124	10	20	158	20	582
1978	105	170	124	15	20	155	20	609
1979	127	170	120	25	20	158	20	640
1980	165	183	120	35	35	160	20	718
1981	185	183	130	83	35	162	19	797
1982	215	188	127	130	50	170	15	895
1983	256	189	147	150	50	164	19	975
1984	310	187	143	170	100	160	21	1,091
1985	328	188	152	185	127	161	19	1,160
1986	339	185	155	200	135	161	16	1,191
1987	359	187	167	200	136	163	17	1,229
1988 2/	375	190	166	195	115	165	19	1,225

1/ Data are estimates based on production and sales figures from Government and private industry.
2/ Projected.

volume of U.S. exports is forecast to rise significantly, foreign exporters will likely make slightly larger gains. Among the competitors, exports by the European Community (EC) are forecast to increase most. This implies a small erosion of the U.S. market share in 1988/89 from 64 to 62 percent, but it would still be the second highest share in the last 7 years.

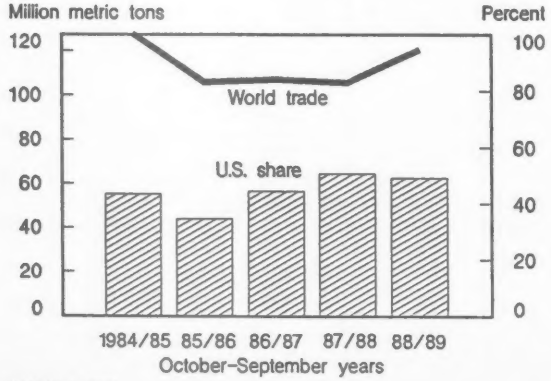
The gap between foreign production and consumption is widening in 1988/89, suggesting increased import needs. Nearly all of the year-to-year gain in world trade is accounted for by the Soviet Union, however. Total imports by other countries are forecast to grow by only about 1 percent.

Foreign Production Drops Only Moderately

World production of coarse grains is forecast to fall 73 million tons in 1988/89 to 719 million, the lowest level since 1983/84. However, the United States accounts for most of this drop. Foreign production of coarse grains is projected to decline just 6 million tons in 1988/89 to 569 million. Major reductions in output from the Soviet Union, Canada, China, Eastern Europe, and Argentina will be nearly offset by large increases for India, Africa, the EC, and Thailand. Record production is forecast for Sub-Saharan Africa, led by increases in the Sahel, Sudan, and West Africa. India's bumper crop is estimated to be the second largest ever.

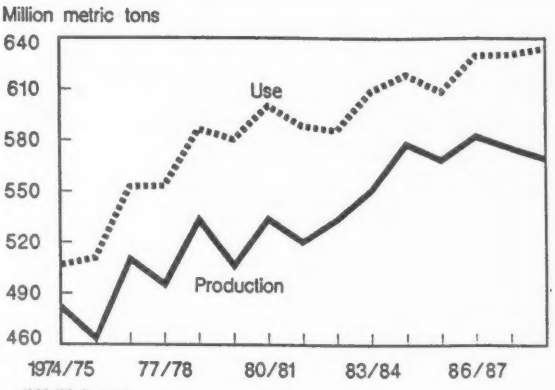
The Soviet Union reported total grain production of 195 million tons for 1988/89, about 40 million tons below target and its first crop under 200 million in 3 years. For the previous 10 years, Soviet production has averaged 193 million tons. Average grain yields were reported to be down 7 percent. Although wheat output was up slightly, coarse grain production fell an estimated 17 million tons (15 percent). It is estimated that total grain area showed little change, as an

World Feed Grain Trade and U.S. Share



1988/89 forecast.
Excludes intra-EC trade.

Foreign Coarse Grain Production and Use



1988/89 forecast.

increase in wheat area was largely offset by a decrease in coarse grain area.

In China, officially reported total grain production also failed to meet last year's level and the target, but declined less sharply than in the Soviet Union. Coarse grains declined an estimated 5 million tons (5 percent). Poor weather caused problems in certain grain-producing areas, slightly lowering average coarse grain yields. However, reduced area explains most of the decline in production.

Mixed Outlook for Southern Hemisphere Exporters

Crop prospects for Argentina have deteriorated in recent weeks because of hot, dry weather. The corn production forecast has been reduced to 6 million tons for 1988/89, 33 percent below last year. This would be the smallest corn crop since 1975/76, another season of poor weather. Harvested area is forecast at 2.2 million hectares, the lowest in over 30 years. Sorghum production will likely fall 7 percent to 2.8 million tons, less than the decline in corn because of its greater tolerance of dry conditions. Nevertheless, this amount would be the lowest since 1971/72, and would continue the downward trend of the 1980's.

Even before the current poor growing season emerged, some corn area was expected to be turned over to soybean production because of better relative prices. The area of corn and sorghum to be harvested for grain is still very uncertain. The amount of planted area not harvested usually shows great variability, and this year farmers' decisions will be influenced by very poor yields in many fields, pasture damage, and probable increases in corn chopped for silage and fodder.

Since Argentina carries very low stocks, the drop in corn production will lower its exports. For 1988/89, corn exports are forecast to decline 25 percent to 2.7 million tons, the lowest level since 1975/76. The availability of corn for ex-

port will depend on how much is actually harvested and how much goes into domestic feed use, now expected to decline.

In contrast, South Africa's growing season has so far been its best in many years. Corn production for 1988/89 is forecast at 9 million tons, the highest production in 8 years, virtually all due to improved yield prospects. Rainfall has been ample and well-timed, while temperatures have generally been cooler than normal. However, conditions for the remainder of February and early March--often a period of erratic weather--will be crucial. Changes could harm the crop and quell this early optimism, as in many previous years. Conversely, favorable weather for the balance of the season could boost yield prospects and produce a crop larger than 9 million tons.

South Africa's corn exports are expected to increase to 2 million tons in 1988/89. This would more than triple last year's level, but would still not equal that of 1986/87. Higher world prices will likely reduce South Africa's required export subsidies significantly. Most exports from South Africa have traditionally gone to markets in East Asia.

Prospects for Australia's sorghum crop have deteriorated since the early part of the season. Expectations for a large increase in area were dashed by poor conditions at planting time --weather was too dry in some crop areas and then too wet later in others. Area is forecast to be the smallest in 6 years at less than 700,000 hectares. Production for 1988/89 will probably dip to 1.3 million tons, a slight drop from last year, but exports will likely equal last year's 600,000 tons.

Policy Issues Figure Prominently in Trade Outlook

Policy decisions by many of the main players in the world market will exert great influence on world use and trade of coarse grains this year. For example, the Soviet Union's coarse grain imports are projected to more than double in 1988/89 to 21.5 million tons (October-September). These larger imports will help to make up for the shortfall in its domestic crop production and state procurements, and also suggest an apparent commitment to producing more meat. In addition to grain, Soviet authorities are importing more protein meal and tapioca for livestock feed.

China is wrestling with the problem of corn surpluses in its northeast growing areas and deficits in large consuming areas in the south. Despite large corn stocks in the northeast and local interest in increasing exports to boost foreign exchange earnings, central authorities have apparently curbed corn exports. China's exports for 1988/89 are forecast at 4 million tons, down slightly from 1987/88. Although moving corn to the southern deficit areas is limited by infrastructure problems, the growth in corn imports to supply these areas has not materialized, leaving China a large net exporter. Consequently, meat supplies will remain tight. Compound feed production will probably continue to expand, but some operations have reportedly closed because of the lack of feed ingredients. Meanwhile, China has been increasing wheat imports and could emerge as the world's largest buyer in 1988/89, even though it apparently had no major setbacks in domestic wheat production.

In the EC, many controversial issues have surfaced in farm program negotiations, including: possible reductions in the buying-in period for its intervention stocks; a subsidy to encourage greater use of EC-produced grains in feeding that would reduce imports of nongrain feed; and further adjustments in pricing policies. These and other proposals largely center around attempts to reduce surplus grain supplies. For 1988/89, the EC will likely export record amounts of both barley and corn to non-EC countries of 10.5 and 2 million tons, respectively, while its imports decline. The major short-term question is whether the EC will continue to grant export restitutions at the same strong pace for the remainder of the year.

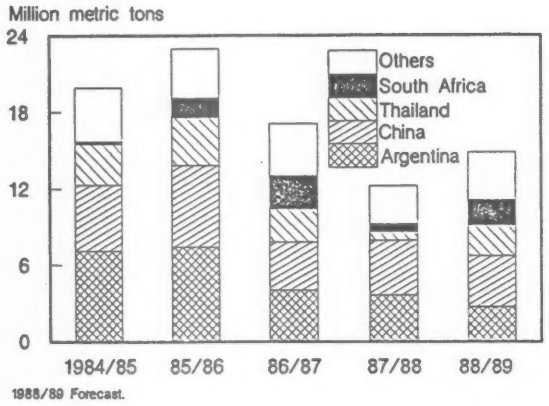
Saudi Arabia, the world's largest barley importer, eliminated its subsidy on barley imports at the beginning of 1989, after reducing it earlier. This action is expected to limit imports and lead to a drawdown in stocks to support consumption. Saudi barley imports peaked in 1986/87 at 9 million tons, and then fell more than 50 percent in 1987/88 to 4.3 million tons after subsidies were reduced. Imports for 1988/89 are forecast at 4 million tons. The Saudi government is interested in achieving self-sufficiency in barley production, as it has in wheat. However, it is unlikely that Saudi Arabia can significantly increase production without drastically adjusting its price policy.

U.S. Corn Exports To Increase Again

U.S. corn exports are forecast to rise 15 percent in 1988/89, the third consecutive annual increase. Higher import demand will produce most of this gain, as competitor corn sales are also likely to increase (see figure). Larger exports from Thailand, South Africa, and the EC more than outweigh the projected decline in Argentina's exports. Although higher domestic feed use and production below earlier estimates have cut Thailand's 1988/89 export forecast in recent weeks to 2.4 million tons, this is still well above last year.

World trade in corn is projected at 65.8 million tons, the highest level in 4 years, primarily because of increased buying by the Soviet Union. Excluding the Soviet Union, world imports are again expected to be flat. There have been no increases since 1986/87 in total imports by other countries.

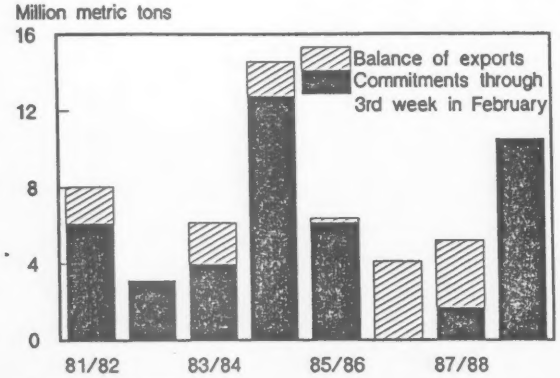
Competitor Corn Exports



1988/89 Forecast.

The biggest drop in 1988/89 corn imports is expected in Sub-Saharan Africa due to its bumper crops. A decline is also forecast in Egypt's imports, with higher prices aggravating severe foreign exchange shortages. For some of the world's largest markets, little or no growth is expected. For example, no change in Japan's corn purchases is projected for 1988/89. Total feed grain imports by Japan are forecast to increase less than 1 percent, with sorghum accounting for most of this rise. Greater imports of meat are apparently reducing growth in mixed feed demand. Taiwan's corn imports are also likely to remain steady in 1988/89 because of lower demand from its livestock industry. Imports by Mexico are forecast to increase by only 3 percent, partially because of weak economic growth.

U.S. Corn Exports to U.S.S.R.



September–August years.

Aside from the Soviet Union, Korea and Eastern Europe are the only markets expected to demonstrate robust growth in 1988/89 corn purchases. Korea's corn imports are forecast to jump more than 20 percent, partly because of decreases in its feed wheat purchases. For the first 3 months of 1988/89, Korea's feed wheat imports plummeted nearly 60 percent from the same period a year earlier. Eastern Europe's corn imports could rise 30 percent because of poor domestic crops for the second consecutive year.

U.S. corn sales to the Soviet Union have soared this year, reaching 10.5 million tons (accumulated exports plus outstanding sales) by February 16. This is the highest level since the 1984/85 record (see figure). In that year, sales by late February made up nearly 90 percent of the eventual total. One year ago, sales at this time only accounted for one third of the eventual total; 2 years ago, no sales were made until later in the year.

In late November, the United States and the Soviet Union extended their second Long-Term Grain Agreement to the end of calendar year 1990. Since then, the United States has twice increased the maximum quantity of grain the Soviet Union may purchase this year without prior consultations. Currently the Soviets may buy up to 20 million tons of U.S. wheat and corn for shipment during the 12 months that began October 1, 1988 without consultation, up from the original 12 million.

Sorghum and Barley Trade To Rise

World trade in both sorghum and barley is projected to increase in 1988/89. Sorghum trade is forecast at 9.7 million tons, up 18 percent from a year earlier, and barley at 17.1 million tons, up 8 percent.

Relative price relationships will largely shape the mix of coarse grains many importers buy. For example, in November the spread between corn and sorghum prices widened, making sorghum purchases more attractive. At that time the Soviet Union bought 500,000 tons of sorghum from the United States and a smaller amount from Argentina. These purchases constitute the first major Soviet sorghum imports since 1984/85. In recent weeks, the Soviets have reportedly bought more sorghum from Argentina.

Japan, the world's largest sorghum importer, is also expected to buy slightly larger amounts in 1988/89 unless relative prices change greatly. Korea is forecast to import 300,000 tons of sorghum in 1988/89, its first significant purchase in 2 years. In Venezuela, the second largest importer, prices currently exert less influence than policy decisions; with corn imports prohibited, sorghum imports reached a record 1.7 million tons in 1987/88. This year, Venezuela's imports could match that level. Mexico's imports are only projected to equal last year's total, but purchases to date have been heavy.

World coarse grain trade: Major exporters and importers by commodity, 1984/85-1988/89 1/

Country	1984/85	1985/86	1986/87	1987/88 Preliminary	1988/89 Forecast
CORN					
Exporters					
U.S.	46.7	31.5	39.4	44.5	51.0
Argentina	7.1	7.4	4.0	3.6	2.7
China	5.2	6.4	3.8	4.3	4.0
Thailand	3.2	3.8	2.6	0.7	2.4
South Africa	0.2	1.5	2.6	0.6	2.0
Others	4.2	3.9	4.1	3.0	3.7
Total	66.6	54.5	56.4	56.8	65.8
Importers					
Japan	14.0	14.6	16.1	16.7	16.7
USSR	20.3	10.3	7.6	8.1	17.3
EC-12	9.0	4.8	2.8	3.2	3.0
Korea, Rep.	3.0	3.6	4.6	5.1	6.2
Taiwan	3.1	3.1	3.5	4.0	4.0
Mexico	1.7	1.7	3.4	3.2	3.3
China	0.1	0.4	1.6	0.2	0.2
East Europe	1.8	2.2	1.7	2.0	2.6
Brazil	0.2	1.9	1.4	0.0	0.1
Egypt	1.7	1.9	2.4	1.4	1.0
Others	11.7	10.0	11.3	12.9	11.4
Total	66.6	54.5	56.4	56.8	65.8
SORGHUM					
Exporters					
U.S.	7.5	4.1	5.1	6.1	7.0
Argentina	3.4	2.2	1.0	1.2	1.3
Australia	1.2	1.1	0.6	0.6	0.6
Others	1.0	1.3	1.2	0.4	0.8
Total	13.1	8.7	8.0	8.2	9.7
Importers					
Japan	4.6	5.1	4.2	3.9	4.2
Mexico	2.5	0.6	0.8	0.9	0.9
Taiwan	0.6	0.8	0.8	0.3	0.3
Venezuela	0.9	0.8	0.8	1.7	1.7
Israel	0.5	0.5	0.2	0.4	0.4
Others	4.0	0.9	1.2	1.0	2.2
Total	13.1	8.7	8.0	8.2	9.7
BARLEY					
Exporters					
EC-12	7.6	7.3	6.2	7.0	10.5
Canada	2.4	4.8	6.0	3.4	3.0
Australia	4.7	3.7	2.2	1.7	1.4
U.S.	1.2	0.8	3.0	2.9	1.0
Others	2.1	1.9	1.2	1.0	1.2
Total	18.0	18.4	18.5	15.9	17.1
Importers					
Saudi Arabia	4.7	6.6	9.0	4.3	4.0
USSR	4.7	2.9	3.0	2.4	3.0
East Europe	1.7	3.3	1.3	1.9	2.0
Japan	1.7	1.5	1.2	1.3	1.3
Others	5.3	4.0	4.1	6.0	6.8
Total	18.0	18.4	18.5	15.9	17.1
COARSE GRAINS TOTAL TRADE	100.4	83.2	84.1	83.0	94.7

1/ October-September year, excludes intra-EC trade. 1987/88 preliminary. 1988/89 forecast.

Because of tight supplies in Australia and Argentina, the United States will gain the most from higher sorghum demand. For the full year, U.S. exports are forecast to rise about 15 percent to 7 million tons. Thailand and China are expected to make smaller gains in exports.

Barley exports from Australia, Canada, and the United States are projected to decline in 1988/89, largely reflecting weather-reduced crops. However, EC exports are forecast to soar 50 percent to 10.5 million tons. Higher world prices are cutting the subsidies needed to make EC grain competitive and render this increase feasible. An additional 300,000 tons of barley sales are also forecast for Syria, an infrequent exporter.

Higher barley demand is expected from a number of importers this year, led by the Soviet Union and North African countries. Last year, world trade fell when Saudi Arabia's dramatic decline in imports more than offset an increase in demand by other buyers. While most of the traded barley goes for feed, and thus competes with corn and other feed grains, there is some increased demand for malting barley in the United States because of the drought and in China.

Stocks Carryout Will Be the Lowest Since 1983/84

In the last year, the focus of the grain market has switched from excess capacity problems to concerns about adequate supplies. These concerns are more pronounced for wheat than for coarse grains, but with a record drawdown of coarse grain stocks expected, attention has also been focused on coarse grains.

World ending stocks of coarse grains are forecast to decrease by 83 million tons to 127 million in 1988/89, the lowest total since the 1983/84 level of 111 million tons. This 1-year decline will exceed the previous record drawdown by about 17 percent (see figure). However, this year's reduction comes from the second highest level of stocks ever, lessening the impact. Compared with 1983/84, stocks at the beginning of 1988/89 were 15 percent higher. The stock reduction will be concentrated in the United States, but foreign stocks are also projected to drop about 10 percent. Most of the 7-million-ton decline in foreign stocks will likely take place in China, Canada, and Eastern Europe.

The United States alone is responsible for the 1-percent drop forecast in world consumption. Foreign consumption will likely grow slightly. The biggest gains in use are projected for India and Sub-Saharan Africa, following excellent crops. In both places, most of the coarse grains are for human consumption, largely on a subsistence level.

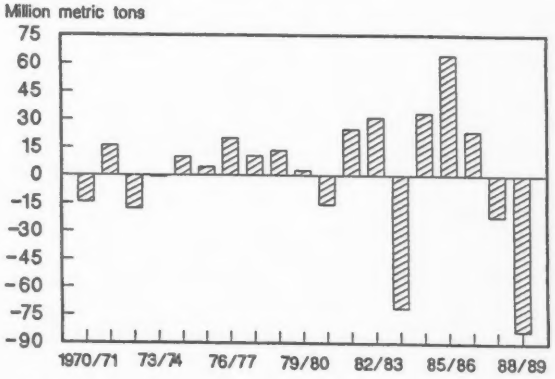
World ending stocks this year will be equivalent to only about 15.8 percent of annual consumption, compared with an average of 21 percent in the past 10 years. In 1983/84, the ratio of ending stocks to use was 14.6 percent. The low point reached during the food crisis of the mid-1970's was 12 percent.

Supplies in the world wheat market are tighter than coarse grains. Wheat trade has fallen in 1988/89, in part because of drought-reduced exports in North America and Argentina. This trade reduction includes a substantial decline in feed-quality wheat which has contributed to stronger world demand for coarse grains. The most important examples are the Soviet Union and Korea, believed to be the largest importers of feed-quality wheat in recent years.

Early indications for the 1989/90 season are for continued tight wheat supplies. Even assuming a large increase in wheat production, stock rebuilding probably will be small. This would result in another year of limited trade in feed-quality wheat.

Rebuilding of world coarse grain reserves could also be limited if consumption increases keep pace with potential production gains. However, in 1984/85, the year after the most recent low point in world stocks, world production increased dramatically. Output went up by 128 million tons (19 percent) while use rose 23 million tons (3 percent), boosting world stocks by 33 million tons (30 percent).

Annual Change in World Coarse Grain Ending Stocks



1988/89 Forecast.

Market Exchange Economies and Other Factors in the Growth of Crop Farms [1/]

by Kenneth R. Krause*

ABSTRACT: A recent report of the Economic Research Service (ERS) goes beyond the usual technical farm efficiency studies to include market exchange economies, and suggests that volume and timing of input purchases are increasingly important in raising net farm income. As output grows, a farm producer can realize economies in volume and timing of marketing.

KEYWORDS: Economies of size, farm growth, inputs, market exchange.

Input Buying Economies

The recent ERS report [1/] summarizes results from past input buying studies; although limited in number and scope, they have been supplemented with recent information from input suppliers, farmers, marketing firms, and farm advisors. The data support common trends observed in previous studies.

For illustrative purposes, potential discounts on volume of seed corn purchases are shown in table 1. The figures represent potential purchase discounts from an average of 11 companies that sold seed corn in the western Corn Belt from fall 1984 through spring 1985.

There was wide variation in the discounts offered by the companies. One company offered a discount of 15 percent on sales of 150 or more bags, regardless of the number of varieties purchased. Another company's maximum discount was 10.25 percent when 300 bags were purchased (sufficient for 900 acres or more). No further discounts were quoted for larger orders. Based on the averages, a farmer planting 1,000 acres of corn would have saved about $2.50 per acre on seed, while a producer with 3,500 acres would have saved over $5.00 per acre by obtaining volume discounts. Agricultural Economist, Economic Research Service (ERS).

In addition to volume purchasing economies that can translate into decreased farm costs, favorable timing of purchases is becoming more important in obtaining low input prices. Larger farmers have greater incentives to devote resources to the favorable timing of purchases. Frequent shifts in the demand for and supply of various farm inputs can require that purchase planning be designed to meet prevailing trends 12 months or more in the future.

Early booking purchases and payment discounts were also offered by most of the companies. There was wide variation in the discounts offered for early payment. Four of the companies ended their early payment discounts by January15, while three companies did not start offering them until the end of January. Time of taking delivery and costs of transportation from company warehouses or dealer storage were not specified, but these factors seemed to be negotiable between buyer and seller. The average early payment discounts were as follows:

In most cases, these discounts would have allowed a farmer-producer who had to borrow money to obtain them to break even. If the farmer had the equity in cash, the discounts were apparently as good as or better than the interest available from a financial institution.

For some farmers, timeliness and quality of service offered by suppliers may outweigh the importance of price. For example, operators emphasized availability of custom application of inputs, or a specialist's help in selecting seeds, diagnosing plant or weed problems, adjusting and repairing machines and equipment, and billing.

*Agricultural Economist, Economic Research Service (ERS).

1/This article is abstracted from Technical Bulletin 1756, "Farmer Buying/Selling Strategies and Growth of Crop Farms," available from ERS-NASS Reports, P.O. Box 1608, Rockville, MD 20850. Write to the above address for price information, or call the ERS-NASS order desk, toll free, at 1-800-999-6779 (8:30-5:00 ET). A microfiche copy may be purchased from the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, VA 22161. Order by title and series number. Call NTIS at (703) 487-4650 and charge your purchase to your VISA, MasterCard, American Express, or NTIS Deposit Account. NTIS will RUSH your order within 24 hours for an extra $10; call (800) 336-4700. Neither the author nor ERS has copies available for free distribution.

Some of the large farmers reported spending little time getting discounts on their major inputs. They reported that their regular suppliers set their prices to include small dealer markups to all farmers. But, these farmers also indicated that their volume of purchases often allowed them to receive associated critical services when urgently needed, and that retailers were reluctant to grant them additional discounts when they made up only a small part of total business. In some cases, input suppliers also provided commodity transportation or procurement, which gave large farmers greater power to bargain for input purchases, product sales, and associated services.

When retailers established large markups and did not provide large-volume farm purchasers with discounts or strong associated services, some customers integrated backwards to selected farm input activities to reduce costs. Some integrated farmers also set up retail businesses to sell to other farmers. Some farmers with moderate or large operations actively invested in input supply, transportation, and marketing firms, thereby receiving farm input discounts and associated services indirectly. In some cases, the input business overtook farming in sales volume and profitability. Thus, the future for the integration of moderate and large operators into input activities depends largely on their entrepreneurial ability and alternatives and the surrounding structure of the input and farm sectors.

Farm buying groups

Some farmers with small and medium operations have joined together to try to obtain volume discounts and consequently become competitive with larger farms. A typical Corn Belt farm operator group has 50 or fewer members within a 30-mile radius. Such a group generally comprises a legal organization or relies on a formal or informal contractual arrangement. The group is usually coordinated by one or more members, who may take orders; submit offers for bids to manufacturers, wholesalers, jobbers and retailers; negotiate final bids and accept deliveries; distribute supplies and equipment to farmer members; and collect and pay out monies. Such a system therefore requires management and may also have storage and transportation needs.

For a buying group to succeed, certain conditions must be met:

- Enough group members must need the same product to achieve sufficient volume to obtain discounts. (Some suppliers provide volume discounts based on total sales of a product line.)

- Required products generally must be different from those available from local retail stores where manufacturers and wholesalers sell their products.

- Members must work together to place orders in a timely manner, make payments, and pick up supplies.

- Members must generally not require warranty services from the input dealer or manufacturer.

- Members must refrain from making product returns or exchanges.

Service requirements do not generally impede the procurement of certain types of inputs, including dry or liquid bulk fertilizers, filters, oils, lubricants, belts, and standard repair parts (such as disk blades and items that require few specialized replacement skills).

Table 1.--Potential volume purchase discounts on seed corn

Acres of corn	Percent discount on seed
500	8
1,000	9.75
2,000	14
3,500	20

Table 2.--Early payment discounts on seed corn

		Percent discount
1984	November	9
	December	7
1985	January	6
	February	5.5
	March	4
	April	3

Although groups using a wide range of farm crop inputs have been reported, no data for groups using major farm machines are available. However, groups pooling their resources to use large machines could theoretically be formed. Some manufacturers and retail dealers in 1984 and 1985 appeared interested enough in reducing inventory to consider selling to buying groups. When such pressures exist, manufacturers and dealers may be willing to provide warranty and service work equal in quality to that provided for single-item sales.

Few volume-buying groups have apparently been formed. As the number, diversity, and complexity of farm inputs increases, service and return provisions seem to be growing in importance for most inputs. This situation may limit the number and size of these groups, as well as input items that they can handle.

Product Selling Economies

Previous studies indicate that large-volume sales of crop commodities can produce 2 to 5 percent or more in net selling income. Farmers in this report indicated that although that was possible in the early eighties, the greatest opportunities to obtain high selling prices came from timing of sales. During the seventies and first half of the eighties, cash market price quotes for food and feed grains varied greatly. For example, the low and the high cash prices for corn in Central Illinois differed by 156 percent in a single marketing year (table 3). The smallest marketing year increase was about 29 percent. Cash soybean prices demonstrated widely fluctuating low to high price percentage movements, while futures market contracts encompassed even greater ranges. The low and the high for wheat futures contracts on the Chicago Board of Trade differed by 333 percent over an assumed 2-year farm marketing period (table 4). The smallest increase was 27 percent.

Given the product price potentials, the farmer respondents indicated that much of their future success will depend on satisfactory sales of their commodities. Volume producers can realize economies of size by obtaining information, analysis, and recommendations themselves, and by employing various sales strategies to get high selling prices. Larger operators can buy data, analyses, and advice from private sector market analysts. They can also participate in Government programs to earn storagepayments, and enter into transactions such as cash sales, cash forward contracting, futures markets contracts, and recently introduced options on futures contracts.

While operators of larger farms may have the opportunity to realize lower net input costs and greater net product prices, larger farmers are not always better buyers and sellers than smaller farmers. Farmers use many different inputs, and the input and farm commodity markets have become dynamic. Some farmers have been stretched beyond their capacity to produce commodities and also do a superior job of buying and selling. Some of these farmers have turned all or part of their marketing over to bankers and other firms that have emerged to sell farmers' product. Some farmers indicated were not absolute profit maximizers, but were content to do just well enough to remain in the top one-third of their peer groups in profitability and growth. Farmers did not expect to consistently sell their products at the highest price in a 1- or 2- year marketing horizon, and acknowledged the difficulty of predicting when the highest prices would occur. Also, since exact yields can't be determined until the crop has been harvested, farmers generally sell little of their crop before harvest.

Farm Growth Model, 1971-1985

A 15-year hypothetical growth model was developed for corn and soybean farms that began with 500 acres in 1971. Hypothetical farmers who had a net worth of $183,500 in 1971, used 50-percent financial leverage from 1971-1985, and did a superior job of buying and selling could have owned about 3,000 acres with 50-percent equity by 1985 and had a net worth of $2.4 million (table 5). Farmers who began with a net worth of $307,000 in 1971 and purchased more land only when they had sufficient cash to pay for it could have ended the period with about 1,500 acres and a net worth of $2.1 million. In addition to showing much greater acreage growth, the model indicated that the best input buyers and product sellers could have realized $30,000 to over $40,000 more income each year for family consumption and fringe benefits than the below average and average buyers and sellers. In most years, superior selling performance contributed more to enhanced profitability than did superior buying performance. However, superior performance in both activities contributed to the after-tax net income available for business growth and family use.

Farmers who did the poorest job of buying and selling in the growth model could have improved their net equity in the seventies because surging land values carried their net worths upward. However, from 1983 through 1986, when farm land prices plummeted 40 percent or more, these farmers would have had to sell land to meet their farm mortgage payments and obtain money for the family's living expenses.

From 1971 through 1981, U.S. food and feed grain exports rose and crop farms prospered. Then the cycle turned and continued downward into the mid-eighties. Government commodity price programs provided substantial help in maintaining gross farm income in the early eighties. Farmers in the model showed net worth decreases of up to 28 percent, but could have achieved a net worth of over $2 million by 1985 if they did a good job of buying and selling.

Conclusion

Some respondents in this report indicated that as their farm business expanded in the seventies, they put more of their energies into serving farm and community organizations than into achieving maximum farm or financial growth. Some farmers also turned to nonfarm business activities and investments. For the most part, those who chose business activities unrelated to agriculture seemed better able to cope with the financial problems their farms experienced in the mid-eighties. Some respondents suggested that, given the problems that family farmers experienced in the thirties and the eighties, farmers should no longer commit a major portion of their assets, labor, management time, and entrepreneurial energies solely to agriculture.

In addition, farm firms that place major emphasis on input discounts and product selling premiums may increase pressures on small input and marketing firms. The larger farm operators sometimes traveled several hundred miles to buy inputs and to sell their products to bigger firms, especially if they did not need related services offered by smaller firms. Others found it advantageous to buy inputs from or sell crops to large-volume firms in small towns only a few minutes' drive from their farms. This was particularly the case where a small town merchant's location favored good transportation rates and the merchant focused on accommodating the competitive price needs of large-volume farmers.

Operators of larger farms mentioned that the greatest change in input firms servicing them in mid-eighties occurred among those involved in crop machinery and equipment retailing. Manufacturers of these items have engaged in substantial mergers and consolidations; consequently, the number of retail dealerships and service facilities has decreased substantially. Some farmers stated that they must now travel an extra 2 hours to have equipment serviced or purchase replacement parts from franchised and manufacturer-owned retail outlets. Whether manufacturer-authorized service and replacement parts outlets will move into locations formerly occupied by the dealerships is unkown. As more large crop farms emerge (and they now account for 35 percent of total farm sales) and fewer moderate ones remain, economic pressures will continue to plague small and moderate input firms in small towns and communities. The impacts will likely be specific to each town and community.

Table 3--Low and high cash market year prices for No. 2 yellow

Market year	9-month marketing year Low price		High price		Low
	-Dollars-				
1971 2/	0.92	(Oct. 14)	1.19	(May 11)	.92
1972 2/	1.17	(Oct. 19)	2.20	(May 31)	1.17
1973 2/	2.09	(Nov. 8)	3.03	(Feb. 21)	2.09
1974 2/	2.50	(Feb. 27)	3.78	(Oct. 3)	2.50
1975 2/	2.32	(Nov. 13)	2.82	(June 24)	2.32
1976	1.98	(June 22)	2.45	(Jan. 12) (April 18-19)	1.53
1977	1.57	(Oct. 12,14)	2.47	(May 25)	1.57
1978	1.92	(Oct. 6,20)	2.93	(June 22)	1.92
1979	2.12	(Jan. 9)	2.66	(Oct. 1)	2.12
1980	2.97	(June 29)	3.56	(Dec. 23)	2.35
1981	2.22	(Dec. 15)	2.68	(April 29)	2.00
1982	1.85	(Oct. 25)	3.20	(May 1) (June 28)	1.85
1983	3.01	(Feb. 14)	3.54	(May 22)	2.65
1984	2.50	(Nov. 26)	2.76	(April 26)	2.11
1985	2.00	(Oct. 24)	2.53	(June 4)	1.18

1/Market year starts October 1. Nine-month marketing year was from October 1 was from October 1 through the following September 30. Daily prices for the en Service data series to determine the low and high price. Prices reported were a 75-mile radius, east, west, and south of Springfield, IL. Forward contract p

2/ Weekly data for Thursdays only were available in Vol. 1, No. 15 through V June 1976).

ow corn, north central Illinois country elevator 1/.

12-month marketing year			Change, low to high	
ow price		High price	9 month	12 month
			Percent	
(Oct. 14)	1.31	(Sept. 21)	29.3	42.4
(Oct. 19)	3.00	(Aug. 9)	88.0	156.4
(Nov. 8)	3.58	(Aug. 31)	45.0	71.3
(Feb. 27)	3.78	(Oct. 3)	51.2	51.2
(Nov. 13)	2.99	(July 14)	21.6	28.9
(Aug. 22-23)	2.45	(Jan. 12) (April 18-19)	23.7	60.1
(Oct. 12,14)	2.47	(May 25)	57.4	57.4
(Oct. 6,20)	2.98	(July 5)	52.6	55.2
(Jan. 9)	3.40	(Sept. 3)	27.4	60.0
(Sept. 28)	3.56	(Dec. 23)	19.9	51.5
(Sept. 30)	2.68	(April 29)	20.7	34.0
(Oct. 25)	3.82	(Aug. 15)	73.0	106.5
(Sept. 28)	3.54	(May 22)	17.6	33.6
(Sept. 27)	2.76	(April 26)	10.4	30.8
(Sept. 16)	2.65	(June 4)	26.5	117.0

r 1 through the following June 30, while the 12-month marketing year
entire market year were reviewed in the USDA Agricultural Marketing
re low and high prices paid to producers who sold to elevators within
t price data were not available.
n Vol. 6, No. 25, Illinois Grain and Livestock News (Oct. 1971 through

Table 4--May wheat futures contract (Chicago Board of Trade), low and high price, for year of contract delivery and the following contract year 1/

Year of contract maturity	Low price		High price		Change to low to high 1 year 2/	Change to low to high 2 years 3/
	Dollars		Dollars		Percent	Percent
1970	1.30	(July)	1.53	(April)	17.7	37.7
1971	1.41	(June)	1.79	(Nov.)	27.0	27.0
1972	1.42	(Sept.)	1.74	(June)	22.5	93.7
1973	1.47	(June)	2.75	(May)	87.1	332.7
1974	2.49	(June)	6.36	(Feb.)	155.4	155.4
1975	3.08	(May)	5.57	(Oct.)	80.9	80.9
1976	3.20	(June)	4.81	(Aug.)	50.3	98.0
1977	2.43	(May)	4.37	(July)	75.7	83.6
1978	2.39	(Aug)	3.35	(April)	40.2	60.3
1979	2.98	(Aug)	3.83	(May)	28.6	72.5
1980	3.45	(April) 4/	5.14	(June)	49.0	65.5
1981	3.93	(May)	5.71	(Oct.)	45.0	67.0
1982	3.42	(May)	5.10	(May) 4/	49.1	60.4
1983	3.18	(Feb.)	4.44	(April) 4/	39.6	39.6
1984	3.25	(Feb.)	4.41	(Aug.)	35.7	35.7
1985	3.33	(Jan.)	4.05	(May) 4/	21.6	47.8
1986 5/	2.74	(Feb.)	3.60	(May)	31.4	NA

Source: Monthly low and high contract price, various issues, Statistical Annual, Chicago Board of Trade.

NA = Not applicable.

1/Old crop May futures contract starts 12 or more months prior to harvest as does the following year contract (for instance, the May 1972 maturing contract started in June of 1971, while the May 1978 maturing contract started in March of 1977).

2/12 months or more prior to contract delivery.

3/12 months or more prior to contract delivery plus 12 or more months after first contract delivery. For example, a wheat producer could have sold his wheat that was harvested in 1973 in June of 1972 on the May 1973 delivery contract for $1.47 (the low) or stored the wheat and sold on the May 1974 delivery contract in February of 1974 for $6.36. Thus there was a difference of 332.7 percent from the low, $1.47 to the high of $6.36 during the two years that the producer could have sold wheat harvested in 1973 on the 1973 and 1974 May delivery wheat futures contracts.

4/Contract low or high was established more than 12 months prior to contract expiration.

5/Contract price through May of 1986.

Table 5--Financial consequences over 15 years of 100-percent equity and 50-percen
using average and 10- and 20-percent discounts on inputs and market timing to ach
grain farms with no livestoc

Item	Unit	Top	Bott
		0	
100-percent equity and purchase more land in 80-acre units when sufficient equity was available to do so at current market prices:			
Acres owed April 1, 1971	Acres	500	
April 1, 1971, beginning equity	Dollars	307,000	307
Acres owned April 1, 1982	Acres	900	
April 1, 1982, ending equity	Dollars	2,222,651	1,603
Acres owned April 1, 1986	Acres	1,300	
April 1, 1986, ending equity	Dollars	1,810,402	1,205
Increase in equity over 15 years	Percent	490	
Federal income taxes paid by the farm corporation	Dollars	484,582	115
Average annual total paid to farm owners for consumption, personal income taxes, and fringe benefits	Dollars	41,350	20
50-percent equity and purchase more land in any size tracts with available equity at current market prices:			
Acres owned April 1, 1971 Acres	Acres	500	
April 1, 1971, beginning equity	Dollars	183,500	183
Acres owned April 1, 1982	Acres	1,532	
April 1, 1982, ending equity	Dollars	2,144,419	1,079
Acres owned April 1, 1986	Acres	2,042	
April 1, 1986, ending equity	Dollars	1,671,581	78
Increase in equity over 15 years	Percent	811	
Federal income taxes paid by the farm corporation	Dollars	484,298	8
Average annual total paid to farm owners for consumption, personal income taxes, and fringe benefits	Dollars	42,623	1

1/Selling price was the highest 25 percent in the marketing year for the top quart
in the marketing year for corn and soybean in northcentral Illinois.

cent equity in farm operating units of 500 acres in 1971, achieve high and low prices for products, central Illinois tock

ottom	Selling quartile 1/ Top	Bottom	Top	Bottom
	Production cost discount 10		20	
500	500	500	500	500
307,000	307,000	307,000	307,000	307,000
660	980	740	980	740
603,564	2,328,398	1,809,192	2,436,180	1,817,733
820	1,380	980	1,460	980
205,241	1,935,217	1,413,401	2,066,210	1,449,471
293	530	360	573	372
115,923	572,375	199,925	628,759	257,573
20,732	47,612	25,916	52,530	28,572
500	500	500	500	500
183,500	183,500	183,500	183,500	183,500
906	1,738	1,050	1,888	1,200
,079,272	2,386,710	1,416,191	2,644,779	1,644,843
954	2,568	1,430	2,982	1,658
780,944	2,102,165	1,170,598	2,441,065	1,357,239
426	1,046	538	1,230	640
86,487	745,432	169,807	987,349	261,574
15,616	60,956	22,140	76,962	30,531

artile and the bottom quartile price was the lowest 25 percent

LIST OF TABLES

Table		Page
1.	Corn, sorghum, oats, barley: Farm price, planted acreage, harvested acreage, production, and yield, 1950 to date	25
2.	Feed grains: Marketing year supply and disappearance, 1975/76-1988/89	27
3.	Foreign corase grains: Supply and disappearance, 1975/76-1988/89	28
4.	Corn: Marketing year supply and disappearance, specified periods, 1975/76-1988/89	29
5.	Sorghum: Marketing year supply and disappearance, specified periods, 19975/76-1988/89	31
6.	Barley: Marketing year supply and disappearance, area, and prices	33
7.	Oats: Marketing year supply and disappearance, area, and prices 1975/76-1988/89	33
8.	Average prices received by farmers, United States, by month, and loan rate, 1970-88	34
9.	Cash prices at principal markets, 1971-88	36
10.	Feed-price ratios for livestock, poultry, and milk, by months, 1971-88	40
11.	Byproduct feeds: Average wholesale price a ton, bulk, specified markets, by months, 1970 to date	42
12.	Corn, sorghum, barley, and oats exports, 1975/76 to date	45
13.	Corn, sorghum, barley, and oats imports, 1975/76 to date	50
14.	Grain protein feeds: Production, exports, and stocks by months, United States, 1970-88	55
15.	Feed grains and grain products used in the production of alcohol, distilled spirits, and beer, by months 1975 to date	57
16.	Hay: Production, harvested acreage, yield, prices received by farmers, and stocks	59
17.	Hay: Average prices received by farmers, United States, by months, 1970-88	59

Table 1--Corn, sorghum, oats, barley: Farm price, planted acreage, harvested acreage,

Corn

Year beginning Sept. 1	Farm price	Planted acreage	Harvested for grain	Production	Yield per harvested acre
	$/bu.	---1,000 acres---		1,000 bushels	Bushels
1950	1.52	82,859	72,398	2,764,071	38.2
1951	1.66	83,275	71,191	2,628,937	36.9
1952	1.52	82,230	71,353	2,980,793	41.8
1953	1.48	81,574	70,738	2,881,801	40.7
1954	1.43	82,185	68,668	2,707,913	39.4
1955	1.35	80,932	68,462	2,872,959	42.0
1956	1.29	77,828	64,877	3,075,336	47.4
1957	1.11	73,180	63,065	3,045,355	48.3
1958	1.12	73,351	63,549	3,356,205	52.8
1959	1.05	82,742	72,091	3,824,598	53.1
1960	1.00	81,425	71,422	3,906,949	54.7
1961	1.10	65,919	57,634	3,597,803	62.4
1962	1.12	65,017	55,726	3,606,311	64.7
1963	1.11	68,771	59,227	4,019,238	67.9
1964	1.17	65,823	55,369	3,484,253	62.9
1965	1.16	65,171	55,392	4,102,867	74.1
1966	1.24	66,347	57,002	4,167,608	73.1
1967	1.03	71,156	60,694	4,860,372	80.1
1968	1.08	65,126	55,980	4,449,542	79.5
1969	1.16	64,264	54,574	4,687,057	85.9
1970	1.33	66,863	57,358	4,152,243	72.4
1971	1.08	74,179	64,123	5,646,260	88.1
1972	1.57	67,126	57,513	5,579,832	97.0
1973	2.55	72,253	62,143	5,670,712	91.3
1974	3.02	77,935	65,405	4,701,402	71.9
1975	2.54	78,719	67,625	5,840,757	86.4
1976	2.15	84,588	71,506	6,289,169	88.0
1977	2.02	84,328	71,614	6,505,041	90.8
1978	2.25	81,675	71,930	7,267,927	101.0
1979	2.48	81,394	72,400	7,928,139	109.5
1980	3.12	84,043	72,961	6,639,396	91.0
1981	2.47	84,097	74,524	8,118,650	108.9
1982	2.55	81,857	72,719	8,235,101	113.2
1983	3.21	60,217	51,483	4,174,678	81.1
1984	2.63	80,543	71,915	7,674,020	106.7
1985	2.23	83,448	75,224	8,876,706	118.0
1986 2/	1.50	76,674	69,159	8,249,864	119.3
1987	1.94	65,704	59,208	7,072,073	119.4
1988 3/	NA	67,619	58,164	4,921,191	84.6

See footnotes at end of table.

e, production, and yield, 1950 to date 1/

Sorghum

Farm price	Planted acreage	Harvested for grain	Production	Yield per harvested acre
$/cwt	---1,000 acres---		1,000 bushels	Bushels
1.88	16,055	10,346	233,536	22.6
2.36	15,028	8,544	162,863	19.1
2.82	12,289	5,326	90,741	17.0
2.36	14,590	6,295	115,719	18.4
2.25	20,148	11,718	235,575	20.1
1.74	23,921	12,891	242,638	18.8
2.05	21,384	9,209	204,881	22.2
1.74	26,886	19,682	567,506	28.8
1.78	20,675	16,524	581,012	35.2
1.53	19,508	15,406	555,441	36.1
1.49	19,598	15,601	619,954	39.7
1.80	14,294	10,985	480,208	43.7
1.82	15,060	11,571	510,284	44.1
1.74	17,516	13,326	585,394	43.9
1.88	16,770	11,742	489,796	41.7
1.76	17,079	13,029	672,698	51.6
1.82	16,372	12,813	714,992	55.8
1.77	18,945	14,988	755,344	50.4
1.69	17,793	13,890	731,277	52.6
1.91	17,231	13,437	729,919	54.3
2.04	16,957	13,568	683,179	50.4
1.86	20,547	16,142	867,997	53.8
2.45	17,035	13,212	801,350	60.7
3.82	18,994	15,700	923,224	58.8
4.95	17,588	13,809	622,711	45.1
4.23	18,080	15,403	754,354	49.0
3.62	18,143	14,466	710,797	49.1
3.25	16,636	13,797	780,944	56.6
3.59	16,197	13,410	731,270	54.5
4.19	15,277	12,901	807,422	62.6
5.19	15,639	12,513	579,343	46.3
4.01	15,930	13,677	875,835	64.0
4.41	16,028	14,137	835,083	59.1
4.89	11,880	10,001	487,521	48.7
4.15	17,254	15,355	866,241	56.4
3.45	18,285	16,782	1,120,271	66.8
2.45	15,336	13,859	938,124	67.7
3.03	11,804	10,604	739,249	69.7
NA	10,358	9,052	577,551	63.8

Continued--

Table 1--Corn, sorghum, oats, barley: Farm price, planted acreage, harvested acre

Year	Oats				
	Farm price	Planted acreage	Harvested for grain	Production	Yield per harvested acre
	$/bu.	---1,000 acres---		1,000 bushels	Bushels
1950	0.79	45,044	39,306	1,369,199	34.8
1951	0.82	41,015	35,233	1,277,647	36.3
1952	0.79	42,341	37,012	1,217,433	32.9
1953	0.74	43,220	37,536	1,153,205	30.7
1954	0.71	46,898	40,551	1,409,601	34.8
1955	0.60	47,494	39,027	1,495,978	38.3
1956	0.69	44,205	33,333	1,151,398	34.5
1957	0.61	41,840	34,065	1,289,880	37.9
1958	0.58	37,699	31,247	1,401,410	44.8
1959	0.65	35,064	27,758	1,050,051	37.8
1960	0.60	31,419	26,588	1,153,332	43.4
1961	0.64	32,314	23,886	1,010,314	42.3
1962	0.62	29,500	22,377	1,012,197	45.2
1963	0.62	28,054	21,308	965,510	45.3
1964	0.63	25,634	19,759	852,257	43.1
1965	0.62	24,046	18,522	929,554	50.2
1966	0.67	23,343	17,877	803,324	44.9
1967	0.66	20,719	16,110	793,800	49.3
1968	0.60	23,342	17,708	950,689	53.7
1969	0.58	23,561	17,971	965,863	53.7
1970	0.62	24,410	18,594	915,236	49.2
1971	0.60	21,831	15,705	878,079	55.9
1972	0.72	19,990	13,410	690,616	51.5
1973	1.18	18,605	13,770	659,136	47.9
1974	1.53	17,013	12,608	600,655	47.6
1975	1.46	16,434	13,038	638,960	49.0
1976	1.56	16,620	11,834	540,441	45.7
1977	1.09	17,732	13,485	752,774	55.8
1978	1.20	16,407	11,126	581,657	52.3
1979	1.33	13,960	9,682	526,748	54.4
1980	1.72	13,381	8,657	458,792	53.0
1981	1.88	13,632	9,407	509,529	54.2
1982	1.49	13,951	10,258	592,630	57.8
1983	1.62	20,289	9,072	476,961	52.6
1984	1.67	12,414	8,163	473,661	58.0
1985	1.23	13,255	8,177	520,800	63.7
1986 2/	1.21	14,691	6,860	386,356	56.3
1987	1.56	17,959	6,925	374,000	54.0
1988 3/	NA	13,927	5,590	218,773	39.1

NA = Not available.
1/ Revised prices received by farmers, 1979 to date reflecting January 30, 1987 Agr
on U.S. monthly prices weighted by monthly marketings. Prices do not include an al
2/ Crop year began October 1 prior to 1986. 3/ Preliminary.

Source: Agricultural Statistics Board, National Agricultural Statistics Service, US

creage, production, and yield, 1950 to date 1/--Continued

r d	Barley				
	Farm price	Planted acreage	Harvested for grain	Production	Yield per harvested acre
	$/bu.	---1,000 acres---		1,000 bushels	Bushels
	1.19	13,010	11,155	303,772	27.2
	1.26	10,790	9,424	257,213	27.3
	1.37	9,190	8,236	228,168	27.7
	1.17	9,615	8,680	246,723	28.4
	1.09	14,740	13,370	379,254	28.4
	0.92	16,293	14,523	403,065	27.8
	0.99	14,732	12,852	376,661	29.3
	0.89	16,398	14,872	442,761	29.8
	0.90	16,150	14,791	477,368	32.3
	0.86	16,766	14,869	420,203	28.3
	0.84	15,527	13,856	429,005	31.0
	0.98	15,623	12,806	392,441	30.6
	0.92	14,380	12,214	427,726	35.0
	0.90	13,452	11,236	392,833	35.0
	0.95	11,652	10,277	386,059	37.6
	1.02	10,123	9,166	393,055	42.9
	1.06	11,184	10,250	392,108	38.3
	1.01	10,077	9,230	373,745	40.5
	0.92	10,486	9,732	426,151	43.8
	0.89	10,291	9,557	427,055	44.7
	0.97	10,476	9,712	416,091	42.8
	0.99	11,061	10,104	462,423	45.8
	1.21	10,567	9,645	421,719	43.7
	2.14	11,045	10,295	417,434	40.5
	2.81	8,713	7,930	298,669	37.7
	2.42	9,373	8,617	379,162	44.0
	2.25	9,301	8,439	383,007	45.4
	1.78	10,778	9,728	427,784	44.0
	1.92	9,989	9,248	454,759	49.2
	2.27	8,116	7,527	383,201	50.9
	2.79	8,320	7,260	361,135	49.7
	2.48	9,618	9,038	473,512	52.4
	2.18	9,549	9,013	515,935	57.2
	2.47	10,422	9,731	508,925	52.3
	2.29	11,957	11,231	599,204	53.4
	1.98	13,156	11,603	591,383	51.0
	1.61	13,059	12,007	610,522	50.8
	1.81	11,046	10,057	529,530	52.7
	NA	9,676	7,535	290,505	38.6

Agricultural Prices report. U.S. average prices based
allowance for loans outstanding and Government purchases.

USDA.

Table 2--Feed grains: Marketing year supply and disappearance, 1975/76-1988/89 1

Year 2/	Supply				Domesti	
	Beginning stocks	Production	Imports	Total	Food, alcohol, and industrial	Seed
						Million
1975/76	21.1	185.0	0.4	206.5	16.5	1.5
1976/77	23.9	194.0	0.3	218.2	17.1	1.6
1977/78	36.9	205.3	0.3	242.5	18.0	1.5
1978/79	50.3	221.5	0.3	272.1	19.2	1.4
1979/80	57.7	237.9	0.3	295.9	20.0	1.4
1980/81	63.8	197.9	0.3	262.0	22.1	1.3
1981/82	44.2	246.2	0.3	290.7	24.0	1.4
1982/83	78.0	250.2	0.3	328.5	26.5	1.4
1983/84	108.6	136.4	0.7	245.7	28.3	1.5
1984/85	39.6	236.9	0.8	277.3	30.6	1.5
1985/86	57.5	274.4	0.9	332.7	33.5	1.5
1986/87	126.3	252.3	0.7	379.4	34.1	1.4
1987/88	152.1	215.4	1.1	368.6	35.5	1.3
1988/89 4/	133.6	149.2	1.3	284.1	--- 36.7 ---	

--- = Not applicable.
1/ Aggregated data on corn, sorghum, barley, and oats. 2/ The marketing year barley, June 1. 3/ Includes total Government loans (original and reseal). 4/ P

9 1/

Disappearance					Ending Stocks		
stic use							
ed	Feed and residual	Total	Exports	Total disappearance	Govt. owned	Privately owned 3/	Total
ion metric tons							
.5	115.4	133.4	49.2	182.6	0.4	23.5	23.9
.6	112.5	131.2	50.1	181.3	---	36.9	36.9
.5	117.1	136.6	55.6	192.2	0.2	50.1	50.3
.4	134.3	154.9	59.5	214.4	3.8	53.9	57.7
.4	139.7	161.1	71.0	232.1	7.8	56.0	63.8
.3	123.9	147.3	70.5	217.8	7.3	36.9	44.2
.4	127.4	152.8	59.9	212.7	8.3	69.7	78.0
.4	139.0	166.9	53.0	219.9	33.5	75.1	108.6
.5	119.7	149.5	56.6	206.1	8.0	31.6	39.6
.5	131.1	163.2	56.6	219.8	8.9	48.6	57.5
.5	134.8	169.8	36.6	206.4	20.4	105.9	126.3
.4	145.4	181.0	46.3	227.2	48.7	103.4	152.1
.3	145.5	182.3	52.6	234.9	34.1	99.5	133.6
--	130.7	167.4	58.9	226.2	16.6	41.3	57.9

ar for corn and sorghum begins September 1; for oats and
/ Projected.

Table 3--Foreign coarse grains: Supply and disappearance, 1975/76-1988/89 1/

Year	Beginning stocks	Production	Feed	Total Disappearance	Imports	Adjusted imports 2/	Ending stocks
			Million metric tons				
Corn:							
1975/76	31.7	191.0	122.6	229.1	57.5	NA	36.1
1976/77	36.1	196.1	120.7	235.4	57.3	NA	38.7
1977/78	38.7	199.8	131.7	246.9	62.9	NA	40.1
1978/79	40.1	207.2	137.6	260.1	69.9	NA	41.1
1979/80	41.1	223.6	159.2	280.2	79.1	73.9	45.8
1980/81	45.8	240.1	168.4	298.0	79.1	78.1	48.9
1981/82	48.9	235.2	175.9	291.3	77.6	67.3	43.8
1982/83	43.8	230.3	174.6	281.5	73.2	63.3	39.1
1983/84	39.1	241.4	167.7	288.9	64.9	61.1	39.8
1984/85	39.8	263.9	183.6	303.6	72.5	66.6	47.4
1985/86	47.4	254.4	186.0	291.8	62.0	54.5	41.2
1986/87	41.2	267.8	195.0	309.9	60.9	56.4	37.2
1987/88 3/	37.2	266.6	196.4	310.1	63.9	56.8	37.6
1988/89 4/	37.6	265.2	209.6	321.3	74.8	65.5	32.3
Sorghum:							
1975/76	7.2	44.7	18.5	50.7	10.2	NA	7.1
1976/77	7.1	44.1	22.1	50.6	12.4	NA	7.1
1977/78	7.1	44.6	21.0	50.0	10.9	NA	7.3
1978/79	7.3	45.0	22.2	49.9	11.1	NA	7.3
1979/80	7.3	41.0	21.5	49.7	12.4	11.6	6.9
1980/81	6.9	44.6	23.3	50.8	12.8	14.1	8.1
1981/82	8.1	48.1	28.5	55.5	14.3	13.7	7.4
1982/83	7.4	44.0	25.2	50.5	12.3	11.6	6.1
1983/84	6.1	46.5	25.8	52.4	13.1	13.0	6.5
1984/85	6.5	44.1	26.2	52.1	12.9	13.1	6.0
1985/86	6.0	42.2	25.0	47.8	9.6	8.7	5.0
1986/87	5.0	41.0	23.1	46.4	8.1	8.0	4.5
1987/88 3/	4.5	36.3	22.8	43.6	8.9	8.2	3.2
1988/89 4/	3.2	43.0	23.8	49.1	10.3	9.7	4.1
Barley:							
1975/76	20.1	132.9	92.1	135.2	13.5	NA	18.0
1976/77	18.0	166.5	112.6	164.5	13.5	NA	21.2
1977/78	21.2	154.6	108.3	158.3	14.4	NA	18.5
1978/79	18.5	173.5	117.1	170.4	13.5	NA	21.9
1979/80	21.9	152.4	113.1	158.4	16.6	11.1	16.9
1980/81	16.9	155.4	107.5	156.6	16.3	13.8	17.1
1981/82	17.1	144.9	105.4	149.6	20.4	13.9	14.4
1982/83	14.4	155.6	107.8	152.9	17.2	13.1	17.9
1983/84	17.9	153.6	115.4	160.4	20.3	16.4	12.9
1984/85	12.9	162.5	115.8	157.8	23.1	17.9	19.1
1985/86	19.1	165.1	120.3	161.8	22.3	18.2	22.6
1986/87	22.6	169.1	125.8	169.7	24.1	18.4	24.8
1987/88 3/	24.8	169.5	128.4	175.0	19.7	15.6	21.7
1988/89 4/	21.7	158.4	117.8	160.2	20.4	16.8	20.6
Total coarse grains: 5/							
1975/76	69.3	463.5	277.7	510.8	83.3	74.8	70.8
1976/77	70.8	510.0	305.8	552.6	85.7	83.6	78.0
1977/78	78.0	495.1	306.5	553.2	90.4	88.8	75.1
1978/79	75.1	533.3	329.2	586.7	96.9	92.8	80.9
1979/80	80.9	506.3	336.1	580.6	110.6	99.2	77.4
1980/81	77.4	534.0	342.0	600.3	110.3	108.1	81.5
1981/82	81.5	520.3	351.7	588.6	114.5	97.5	72.8
1982/83	72.8	533.6	357.2	585.8	104.0	89.5	73.2
1983/84	73.2	551.0	364.6	609.2	100.2	92.8	70.8
1984/85	70.8	578.0	378.4	618.8	111.2	99.6	85.9
1985/86	85.9	568.7	387.3	608.9	95.7	82.2	81.3
1986/87	81.3	582.6	396.7	630.0	94.9	83.4	79.4
1987/88 3/	79.4	575.5	399.5	630.7	94.5	81.8	75.7
1988/89 4/	75.7	569.3	400.5	634.2	107.3	93.4	68.4

NA = Not available.
1/ Aggregated on basis of local marketing years, except for adjusted imports. 2/ Based on Oct./Sept. trade year and excludes intra-EC trade. 3/ Preliminary. 4/ Forecast.
5/Includes oats, rye, millet, and mixed grains.

Source: Compiled from World Grain Situation and Outlook, Foreign Agricultural Service, and USDA data.

Table 4--Corn: Marketing year supply and disappearance, specified periods, 19

Year beginning September 1	Supply				Domestic	
	Beginning stocks	Production	Imports	Total	Food, alcohol, and industrial	Seed
						Million b
1976/77						
Sept.-Nov.	633.2	6,289.2	0.5	6,922.9	130.3	---
Dec.-Feb.	5,387.2	---	0.4	5,387.6	117.9	---
Mar.-May	3,848.2	---	0.6	3,848.8	131.9	16.1
June-Aug.	2,370.0	---	1.0	2,371.0	142.0	4.0
Mkt. year	633.2	6,289.2	2.5	6,924.9	522.1	20.1
1977/78						
Sept.-Nov.	1,135.6	6,505.0	0.7	7,641.3	138.9	---
Dec.-Feb.	6,086.7	---	0.7	6,087.4	128.6	---
Mar.-May	4,481.6	---	0.6	4,482.2	141.7	15.6
June-Aug.	2,861.1	---	0.6	2,861.7	152.3	3.9
Mkt. year	1,135.6	6,505.0	2.6	7,643.2	561.5	19.5
1978/79						
Sept.-Nov.	1,435.9	7,267.9	0.2	8,704.0	146.7	---
Dec.-Feb.	6,928.2	---	0.4	6,928.6	135.1	---
Mar.-May	5,151.1	---	0.3	5,151.4	157.5	15.6
June-Aug.	3,287.2	---	0.4	3,287.6	149.2	3.9
Mkt. year	1,435.9	7,267.9	1.3	8,705.1	588.5	19.5
1979/80						
Sept.-Nov.	1,709.5	7,928.1	0.3	9,637.9	151.5	---
Dec.-Feb.	7,594.1	---	0.2	7,594.3	140.3	---
Mar.-May	5,557.0	---	0.2	5,557.2	159.6	16.0
June-Aug.	3,644.3	---	0.2	3,644.5	168.1	4.0
Mkt. year	1,709.5	7,928.1	0.9	9,638.5	619.5	20.0
1980/81						
Sept.-Nov.	2,034.3	6,639.4	0.5	8,674.2	168.7	---
Dec.-Feb.	6,595.9	---	0.2	6,596.1	158.0	---
Mar.-May	4,662.4	---	0.2	4,662.6	181.7	16.2
June-Aug.	2,773.5	---	0.5	2,774.0	189.4	4.0
Mkt. year	2,034.3	6,639.4	1.4	8,675.1	697.8	20.2
1981/82						
Sept.-Nov.	1,392.1	8,118.7	0.2	9,511.0	188.8	---
Dec.-Feb.	7,601.1	---	0.4	7,601.5	180.2	---
Mar.-May	5,766.4	---	0.2	5,766.6	201.9	16.0
June-Aug.	3,880.1	---	0.3	3,880.4	206.9	3.4
Mkt. year	1,392.1	8,118.7	1.1	9,511.9	777.8	19.4

See footnotes at end of table.

1975/76-1988/89

Disappearance				Ending stocks		
tic use						
	Feed and residual	Total	Exports	Total disappearance	Govt. owned	Privately owned 1/	Total
n bushels							
	933.9	1,064.2	471.5	1,535.7	0.2	5,387.0	5,387.2
	1,036.2	1,154.1	385.3	1,539.4	0.1	3,848.1	3,848.2
	897.2	1,045.2	433.6	1,478.8	0.3	2,369.7	2,370.0
	723.1	869.1	366.3	1,235.4	0.2	1,135.4	1,135.6
	3,590.4	4,132.6	1,656.7	5,789.3	0.2	1,135.4	1,135.6
	1,013.5	1,152.4	402.2	1,554.6	0.2	6,086.5	6,086.7
	1,066.4	1,195.0	410.8	1,605.8	0.4	4,481.2	4,481.6
	935.6	1,092.9	528.2	1,621.1	0.4	2,860.7	2,861.1
	701.7	857.9	567.9	1,425.8	3.5	1,432.4	1,435.9
	3,717.2	4,298.2	1,909.1	6,207.3	3.5	1,432.4	1,435.9
	1,157.9	1,304.6	471.2	1,775.8	60.3	6,867.9	6,928.2
	1,226.7	1,361.8	415.7	1,777.5	95.2	5,055.9	5,151.1
	1,133.6	1,306.7	557.5	1,864.2	100.6	3,186.6	3,287.2
	745.7	898.8	679.3	1,578.1	100.5	1,609.0	1,709.5
	4,263.9	4,871.9	2,123.7	6,995.6	100.5	1,609.0	1,709.5
	1,267.5	1,419.0	624.8	2,043.8	99.6	7,494.5	7,594.1
	1,296.2	1,436.5	600.8	2,037.3	100.1	5,456.9	5,557.0
	1,146.1	1,321.7	591.2	1,912.9	213.5	3,430.8	3,644.3
	839.5	1,011.6	598.6	1,610.2	260.1	1,774.2	2,034.3
	4,549.3	5,188.8	2,415.4	7,604.2	260.1	1,774.2	2,034.3
	1,217.9	1,386.6	691.7	2,078.3	256.7	6,339.2	6,595.9
	1,126.3	1,284.3	649.4	1,933.7	252.3	4,410.1	4,662.4
	1,072.4	1,270.3	618.8	1,889.1	251.6	2,521.9	2,773.5
	740.5	933.9	448.0	1,381.9	241.8	1,150.3	1,392.1
	4,157.1	4,875.1	2,407.9	7,283.0	241.8	1,150.3	1,392.1
	1,198.4	1,387.2	522.7	1,909.9	243.6	7,357.5	7,601.1
	1,182.0	1,362.2	472.9	1,835.1	259.3	5,507.1	5,766.4
	1,069.6	1,287.5	599.0	1,886.5	269.7	3,610.4	3,880.1
	718.6	928.9	414.9	1,343.8	280.1	2,256.5	2,536.6
	4,168.6	4,965.8	2,009.5	6,975.3	280.1	2,256.5	2,536.6

Continued--

Table 4--Corn: Marketing year supply and disappearance, specified periods, 1975/76-1

Year beginning September 1	Supply				Disa		
	Beginning stocks	Production	Imports	Total	Domestic use		
					Food, alcohol, and industrial	Seed	Feed and residua
					Million bushels		
1982/83							
Sept.-Nov.	2,536.6	8,235.1	0.3	10,772.0	217.5	---	1202.0
Dec.-Feb.	8,906.3	---	0.1	8,906.4	201.6	---	1293.6
Mar.-May	6,899.2	---	0.2	6,899.4	226.6	11.6	1258.3
June-Aug.	4,923.9	---	0.1	4,924.0	234.6	2.9	766.8
Mkt. year	2,536.6	8,235.1	0.7	10,772.4	880.3	14.5	4,520.7
1983/84							
Sept.-Nov.	3,523.1	4,174.7	0.5	7,698.3	238.6	---	1,311.0
Dec.-Feb.	5,651.7	---	0.6	5,652.3	222.8	---	1,056.0
Mar.-May	3,865.0	---	1.0	3,866.0	247.3	16.8	939.5
June-Aug.	2,145.1	---	0.6	2,145.7	247.3	2.3	511.1
Mkt. year	3,523.1	4,174.7	2.7	7,700.5	956	19.1	3,817.6
1984/85							
Sept.-Nov.	1,006.3	7,674.0	0.9	8,681.2	249.7	---	1,294.2
Dec.-Feb.	6,631.1	---	0.4	6,631.5	241.5	---	1,182.9
Mar.-May	4,623.2	---	1.1	4,624.3	283.8	17.0	1,009.1
June-Aug.	2,835.5	---	1.1	2,836.6	295.0	4.2	592.8
Mkt. year	1,006.3	7,674.0	3.5	8,683.8	1,070.0	21.2	4,079.0
1985/86							
Sept.-Nov.	1,648.2	8,876.7	1.0	10,525.9	278.0	---	1,215.5
Dec.-Feb.	8,614.7	---	1.3	8,616.0	264.0	---	1,299.6
Mar.-May	6,587.1	---	2.3	6,589.4	293.0	16.1	1,085.9
June-Aug.	4,990.0	---	6.0	4,996.0	305.0	3.4	494.3
Mkt. year	1,648.2	8,876.7	10.6	10,535.5	1,140.0	19.5	4,095.3
1986/87							
Sept.-Nov.	4,039.5	8,249.9	0.8	12,290.2	280.0	---	1,383.6
Dec.-Feb.	10,305.5	---	0.3	10,305.8	270.0	---	1,472.2
Mar.-May	8,248.2	---	0.5	8,248.7	310.0	16.4	1,089.9
June-Aug.	6,332.2	---	0.5	6,332.7	315.0	0.3	768.0
Mkt. year	4,039.5	8,249.9	2.1	12,291.5	1,175.0	16.7	4,713.7
1987/88							
Sept.-Nov	4,881.7	7,072.1	0.6	11,954.4	292.0	---	1,493.4
Dec.-Feb.	9,771.0	---	0.9	9,771.9	282.0	---	1,446.0
Mar.-May	7,635.6	---	1.6	7,637.2	315.0	16.7	956.2
June-Aug.	5,835.5	---	0.9	5,836.4	323.0	0.5	839.4
Mkt. year	4,881.7	7,072.1	4.0	11,957.8	1,212.0	17.2	4,735.0
1988/89							
Sept.-Nov	4,259.1	4,921.2	0.7	9,181.0	289.0	---	1,339.4
Dec.-Feb.							
Mar.-May							
June-Aug.							
Mkt. year 2/	4,259.1	4,921.2	5.0	9,185.3	1,205.7	19.3	4,300.0

--- = Not applicable.
1/ Includes quantity under loan and farmer-owned reserve. 2/ Projected.

6-1988/89--Continued

isappearance				Ending stocks		
ed d dual	Total	Exports	Total disap-pearance	Govt. owned	Privately owned 1/	Total
2.0	1,419.5	446.2	1,865.7	372.0	8,534.3	8,906.3
3.6	1,495.2	512.0	2,007.2	470.8	6,428.4	6,899.2
8.3	1,496.5	479.0	1,975.5	491.7	4,432.2	4,923.9
6.8	1,004.3	396.6	1,400.9	142.7	2,380.4	3,523.1
0.7	5,415.5	1,833.8	7,249.3	142.7	2,380.4	3,523.1
1.0	1,549.6	497.0	2,046.6	227.0	4,424.7	5,651.7
6.0	1,278.8	508.5	1,787.3	214.0	2,651.0	3,865.0
9.5	1,203.6	517.3	1,720.9	195.0	1,950.1	2,145.1
1.1	760.7	378.7	1,139.4	201.5	804.8	1,006.3
7.6	4,792.7	1,901.5	6,694.2	201.5	804.8	1,006.3
4.2	1,543.9	506.2	2,050.1	206.7	6,424.4	6,631.1
2.9	1,424.4	583.9	2,008.3	209.7	4,413.5	4,623.2
9.1	1,309.9	478.9	1,788.8	221.7	2,613.8	2,835.5
2.8	892.0	296.4	1,188.4	224.9	1,423.3	1,648.2
9.0	5,170.2	1,865.4	7,035.6	224.9	1,423.3	1,648.2
5.5	1,493.5	417.7	1,911.2	388.6	8,226.1	8,614.7
9.6	1,563.6	465.3	2,028.9	509.4	6,077.7	6,587.1
5.9	1,395.0	204.4	1,599.4	550.9	4,439.1	4,990.0
4.3	802.7	153.8	956.5	545.7	3,493.8	4,039.5
5.3	5,254.8	1,241.2	6,496.0	545.7	3,493.8	4,039.5
3.6	1,663.6	321.1	1,984.7	968.2	9,337.3	10,305.5
2.2	1,742.2	315.4	2,057.6	1,362.2	6,886.0	8,248.2
9.9	1,416.3	500.2	1,916.5	1,491.5	4,840.7	6,332.2
8.0	1,083.3	367.7	1,451.0	1,443.2	3,438.5	4,881.7
3.7	5,905.4	1,504.4	7,409.8	1,443.2	3,438.5	4,881.7
3.4	1,785.4	398.0	2,183.4	1,683.4	8,087.6	9,771.0
6.0	1,728.0	408.3	2,136.3	1,767.7	5,867.9	7,635.6
6.2	1,287.9	513.8	1,801.7	1,304.9	4,530.6	5,835.5
9.4	1,162.9	414.4	1,577.3	835.0	3,424.1	4,259.1
5.0	5,964.2	1,734.5	7,698.7	835.0	3,424.1	4,259.1
9.6	1,628.6	481.5	2,110.1	611.0	6,459.9	7,070.9
0.0	5,525.0	2,000.0	7,525.0	250.0	1,410.0	1,660.0

Table 5--Sorghum: Marketing year supply and disappearance, specified periods, 197

Year beginning September 1	Supply				Domes	
	Begin-ning stocks	Produc-tion	Imports	Total	Food, alcohol, and industrial	Seed
						Million bus
1975/76						
Sept.-May	65.3	754.4	0.0	819.7	6.9	1.6
June-Aug.	154.0	0.0	0.0	154.0	1.9	0.7
Mkt. year	65.3	754.4	0.0	819.7	8.8	2.3
1976/77						
Sept.-May	82.3	710.8	0.0	793.1	6.7	1.4
June-Aug.	195.7	0.0	0.0	195.7	1.9	0.6
Mkt. year	82.3	710.8	0.0	793.1	8.6	2.0
1977/78						
Sept.-May	117.3	780.9	0.0	898.2	7.1	1.4
June-Aug.	319.1	0.0	0.0	0.0	2.3	0.6
Mkt. year	117.3	780.9	0.0	780.9	9.4	2.0
1978/79						
Sept.-May	216.4	731.3	0.0	731.3	7.7	1.3
June-Aug.	322.2	0.0	0.0	0.0	2.3	0.5
Mkt. year	216.4	731.3	0.0	731.3	10.0	1.8
1979/80						
Sept.-May	207.9	807.4	0.0	1,015.3	8.3	1.4
June-Aug.	277.6	0.0	0.0	277.6	2.1	0.6
Mkt. year	207.9	807.4	0.0	1,015.3	10.4	2.0
1980/81						
Sept.-May	177.9	579.3	0.0	757.2	7.2	1.4
June-Aug.	184.5	0.0	0.0	184.5	1.9	0.6
Mkt. year	177.9	579.3	0.0	757.2	9.1	2.0
1981/82						
Sept.-May	130.3	875.8	0.0	1,006.1	6.8	1.4
June-Aug.	379.5	0.0	0.0	379.5	2.0	0.6
Mkt. year	130.3	875.8	0.0	1,006.1	8.8	2.0

See footnotes at end of table.

1975/76-1988/89

Disappearance				Ending stocks		
mestic use						
Feed and residual	Total	Exports	Total disappearance	Govt. owned	Privately owned 1/	Total
bushels						
477.4	485.9	179.8	665.7	0.0	154.0	154.0
16.7	19.3	52.4	71.7	0.0	82.3	82.3
494.1	505.2	232.2	737.4	0.0	82.3	82.3
385.0	393.1	204.3	597.4	0.3	195.4	195.7
26.2	28.7	49.7	78.4	0.2	117.1	117.3
411.2	421.8	254.0	675.8	0.2	117.1	117.3
393.7	402.2	176.9	579.1	0.3	318.8	319.1
53.8	54.4	46.0	102.7	5.0	211.4	216.4
447.5	456.6	222.9	681.8	5.0	211.4	216.4
465.9	467.2	150.6	625.5	42.8	279.4	322.2
72.0	72.5	39.5	114.3	43.7	164.2	207.9
537.9	539.7	190.1	739.8	43.7	164.2	207.9
460.8	470.5	267.2	737.7	45.6	232.0	277.6
34.6	37.3	62.4	99.7	45.6	132.3	177.9
495.4	507.8	329.6	837.4	45.6	132.3	177.9
352.6	361.2	211.5	572.7	43.8	140.7	184.5
(29.9)	(27.4)	81.6	54.2	41.5	88.8	130.3
322.7	333.8	293.1	626.9	41.5	88.8	130.3
413.5	421.7	204.9	626.6	38.3	341.2	379.5
3.5	6.1	54.8	60.9	41.8	276.8	318.6
417.0	427.8	259.7	687.5	41.8	276.8	318.6

Continued--

Table 5--Sorghum: Marketing year supply and disappearance, specified periods, 1975/76

Year beginning September 1	Supply				Dis	
	Begin-ning stocks	Produc-tion	Imports	Total	Domestic	
					Food, alcohol, and industrial	Seed
					Million bushels	
1982/83						
Sept.-May	318.6	835.1	0.0	1,153.7	6.0	0.9
June-Aug.	529.1	0.0	0.0	529.1	1.9	0.9
Mkt. year	318.6	835.1	0.0	1,153.7	7.9	1.8
1983/84						
Sept.-May	439.1	487.5	0.0	926.6	5.7	1.1
June-Aug.	368.9	0.0	0.1	369.0	2.0	1.2
Mkt. year	439.1	487.5	0.1	926.7	7.7	2.3
1984/85						
Sept.-May	287.4	866.2	0.1	1,153.7	12.4	1.5
June-Aug.	360.8	0.0	0.0	360.8	2.9	0.5
Mkt. year	287.4	866.2	0.1	1,153.7	15.3	2.0
1985/86						
Sept.-May	300.2	1,120.3	0.0	1,420.5	22.1	1.2
June-Aug.	630.0	0.0	0.0	630.0	3.9	0.5
Mkt. year	300.2	1,120.3	0.0	1,420.5	26.0	1.7
1986/87						
Sept.-May	551.0	938.1	0.0	1,489.1	8.2	1.0
June-Aug.	835.0	0.0	0.0	835.0	2.2	0.6
Mkt. year	551.0	938.1	0.0	1,489.1	10.4	1.6
1987/88						
Sept.-May	743.3	739.2	0.0	1,482.5	14.4	0.8
June-Aug.	807.8	0.0	0.0	807.8	9.1	0.6
Mkt. year	743.3	739.2	0.0	1,482.5	23.5	1.4
1988/89						
Sept.-May						
June-Aug.						
Mkt. year 2/	662.7	577.6	0.0	1,240.3	18.5	1.5

1/ Includes quantity under loan and farmer-owned reserve. 2/ Projected.

/76-1988/89--Continued

Disappearance				Ending stocks		
tic use---------- Feed and residual	Total	Exports	Total disap-pearance	Govt. owned	Privately owned 1/	Total
els						
453.5	460.4	164.2	642.6	54.0	475.1	529.1
41.3	44.1	45.9	90.0	171.5	267.6	439.1
494.8	504.5	210.1	714.6	171.5	267.6	439.1
356.5	363.3	194.4	557.7	78.0	290.9	368.9
28.2	31.4	50.2	81.6	102.8	184.6	287.4
384.7	394.7	244.6	639.3	102.8	184.6	287.4
542.2	556.1	236.8	792.9	111.1	249.7	360.8
(2.9)	0.5	60.1	60.6	112.1	188.1	300.2
539.3	556.6	296.9	853.5	112.1	188.1	300.2
626.9	650.2	140.3	790.5	181.4	447.5	630.0
36.9	41.3	37.7	79.0	207.2	343.8	551.0
663.8	691.5	178.0	869.5	207.2	343.8	551.0
490.1	499.3	154.8	654.1	400.4	434.6	835.0
45.4	48.2	43.5	91.7	409.0	334.3	743.3
535.5	547.5	198.3	745.8	409.0	334.3	743.3
474.2	489.4	185.3	674.7	535.0	272.8	807.8
89.4	99.1	46.0	145.1	463.6	199.1	662.7
563.6	588.5	231.3	819.8	463.6	199.1	662.7
515.3	535.3	275.0	810.3	375.0	55.0	430.0

Table 6--Barley: Marketing year supply and disappearance, area and prices, 197

Year beginning June 1	Supply: Beginning stocks	Supply: Production	Supply: Imports	Supply: Total	Domestic use: Food, alcohol, and industrial	Domestic use: Seed
						Million bu
1975/76	92.0	379.2	15.7	486.9	130.5	15.7
1976/77	128.4	383.0	10.8	522.2	137.0	18.2
1977/78	126.4	427.8	9.4	563.6	138.6	16.7
1978/79	173.1	454.8	10.5	638.4	153.7	13.6
1979/80	228.0	383.2	11.8	623.0	157.9	14.0
1980/81	192.1	361.1	10.2	563.4	162.3	13.2
1981/82	137.3	473.5	9.6	620.4	158.0	16.3
1982/83	147.8	515.9	10.7	674.4	152.7	17.4
1983/84	216.7	508.9	7.1	732.7	149.5	19.5
1984/85	189.4	599.2	10.1	798.7	149.0	21.6
1985/86	247.4	591.4	9.0	847.8	147.2	21.4
1986/87	324.8	610.5	8.7	944.0	156.1	17.9
1987/88 3/	335.6	529.5	13.9	879.1	158.3	15.7
1988/89 4/						
June-Aug.	321.2	261.5	3.1	585.7	42.8	0.0
Sept.-Nov.	450.7	29.1	2.5	482.3	37.0	1.7
Mkt. Year	321.3	290.5	15.0	626.7	158.2	16.8

--- = Not applicable.
1/ Quarterly supply and disappearance estimates discontinued because barley has
2/ Includes quanity under loan and farmer-owned reserve. 3/ Preliminary. 4/ Pr

Table 7--Oats: Marketing year supply and disappearance, area, and prices, 1975/

Year beginning June 1	Supply: Beginning stocks	Supply: Production	Supply: Imports	Supply: Total	Domestic use: Food, alcohol, and industrial	Domestic use: Seed
						Million b
1975/76	224.0	639.0	0.7	863.7	44.0	42.7
1976/77	204.8	540.4	1.4	746.6	42.4	45.9
1977/78	164.3	752.8	2.2	919.3	42.0	42.5
1978/79	313.1	581.7	0.7	895.5	41.0	36.1
1979/80	280.0	526.7	0.9	807.6	40.7	34.6
1980/81	236.4	458.8	1.3	696.5	41.0	33.0
1981/82	177.0	509.5	1.6	688.1	41.2	35.4
1982/83	151.9	592.6	3.9	748.4	41.7	43.3
1983/84	219.8	477.0	30.1	726.9	40.9	31.9
1984/85	181.1	473.7	34.0	688.8	41.0	34.6
1985/86	179.9	520.8	27.5	728.2	44.0	38.4
1986/87	183.7	386.4	33.3	603.4	45.0	28.1
1987/88 3/	132.7	374.0	46.3	553.0	49.8	29.2
1988/89 4/	111.9	218.8	60.0	390.7	---86.0---	

--- Not applicable.
1/ Quarterly supply and disappearance estimates discontinued because oats has b
2/ Includes quanity under loan and farmer-owned reserve. 3/ Preliminary. 4/ P

1975/76-1988/89 1/

-------Disappearance----------				--Ending Stocks May 31--		
c use---------- Feed and residual	Total	Exports	Total disap-pearance	Govt. owned	Privately owned 2/	Total
bushels						
188.5	334.7	23.8	358.5	---	128.4	128.4
174.4	329.6	66.2	395.8	---	126.4	126.4
178.0	333.3	57.2	390.5	---	173.1	173.1
217.4	384.7	25.7	410.4	2.5	225.5	228.0
204.2	376.1	54.8	430.9	3.2	188.9	192.1
173.9	349.4	76.7	426.1	3.4	133.9	137.3
198.2	372.5	100.1	472.6	3.3	144.5	147.8
240.4	410.5	47.2	457.7	6.0	210.7	216.7
282.8	451.8	91.5	543.3	11.9	177.5	189.4
303.9	474.5	76.8	551.3	14.6	232.8	247.4
332.6	501.2	21.8	523.0	57.4	267.4	324.8
297.7	471.7	136.7	608.4	75.5	260.9	335.6
258.5	432.5	125.3	557.8	50.1	271.2	321.3
65.6	108.4	26.6	135.0	35.9	414.8	450.7
53.7	92.4	14.2	106.6	35.9	339.8	375.7
240.0	415.0	50.0	465.0	30.0	132.0	162.0

as been dropped from quarterly grain stocks survey.
/ Projected.

975/76-1988/89 1/

--------Disappearance----------				--Ending Stocks May 31--		
ic use---------- Feed and residual	Total	Exports	Total disap-pearance	Govt. owned	Privately owned 2/	Total
n bushels						
558.5	645.2	13.7	658.9	24.9	179.9	204.8
484.4	572.7	9.6	582.3	---	164.3	164.3
509.4	593.9	12.3	606.2	---	313.1	313.1
525.7	602.8	12.7	615.5	2.7	277.3	280.0
491.8	567.1	4.1	571.2	2.7	233.7	236.4
432.2	506.2	13.3	519.5	2.3	174.7	177.0
453.0	529.6	6.6	536.2	0.7	151.2	151.9
440.6	525.6	3.0	528.6	0.7	219.1	219.8
470.9	543.7	2.1	545.8	1.5	179.6	181.1
432.0	507.6	1.3	508.9	1.4	178.5	179.9
459.9	542.3	2.2	544.5	1.9	181.8	183.7
394.8	467.9	2.8	470.7	3.5	129.2	132.7
360.8	439.8	1.3	441.1	3.5	108.4	111.9
214.7	300.7	1.0	301.7	2.0	87.0	89.0

s been dropped from quarterly grain stocks survey.
/ Projected.

Table 8--Average prices received by farmers, United States, by month, and loan rate, 1970-88 1/

Year	Sept	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Average 2/	Loan rate
						$/bu.								
Corn:														
1970	1.38	1.34	1.29	1.36	1.42	1.43	1.43	1.41	1.38	1.43	1.36	1.19	1.33	1.05
1971	1.11	1.00	0.97	1.08	1.09	1.09	1.10	1.13	1.15	1.13	1.14	1.15	1.08	1.05
1972	1.22	1.19	1.20	1.42	1.39	1.35	1.37	1.42	1.61	1.99	2.03	2.68	1.57	1.05
1973	2.15	2.17	2.18	2.39	2.59	2.76	2.68	2.41	2.45	2.57	2.91	3.37	2.55	1.05
1974	3.30	3.45	3.32	3.27	3.07	2.86	2.67	2.68	2.66	2.68	2.72	2.95	3.02	1.10
1975	2.76	2.62	2.33	2.37	2.44	2.48	2.50	2.46	2.61	2.74	2.82	2.64	2.54	1.10
1976	2.60	2.33	2.02	2.24	2.34	2.34	2.35	2.31	2.25	2.12	1.88	1.63	2.15	1.50
1977	1.60	1.67	1.88	1.97	2.00	2.03	2.15	2.24	2.29	2.28	2.16	2.01	2.02	2.00
1978	1.98	1.97	2.02	2.09	2.11	2.18	2.22	2.27	2.35	2.49	2.64	2.54	2.25	2.00
1979	2.51	2.41	2.27	2.38	2.45	2.39	2.40	2.36	2.42	2.49	2.73	2.92	2.48	2.10
1980	3.01	2.99	3.10	3.19	3.19	3.22	3.25	3.24	3.24	3.17	3.14	2.87	3.12	2.25
1981	2.55	2.45	2.34	2.39	2.54	2.44	2.46	2.55	2.60	2.57	2.50	2.30	2.47	2.40
1982	2.15	1.98	2.13	2.26	2.36	2.56	2.71	2.95	3.03	3.04	3.13	3.35	2.55	2.55
1983	3.32	3.15	3.17	3.15	3.15	3.11	3.21	3.32	3.34	3.36	3.30	3.12	3.21	2.65
1984	2.90	2.65	2.55	2.56	2.64	2.62	2.67	2.70	2.68	2.64	2.60	2.44	2.63	2.55
1985	2.29	2.11	2.21	2.29	2.33	2.32	2.29	2.30	2.39	2.32	2.00	1.73	2.23	2.55
1986	1.45	1.40	1.47	1.50	1.48	1.42	1.47	1.52	1.66	1.69	1.60	1.47	1.49	1.92
1987	1.49	1.55	1.61	1.72	1.77	1.83	1.86	1.88	1.94	2.41	2.72	2.65	1.75	1.82
1988	2.60	2.58	2.51	2.53 3/	2.58									1.77
						$/cwt.								
Sorghum:														
1970	2.07	2.02	2.02	2.04	2.10	2.16	2.17	2.19	2.33	2.43	2.37	2.27	2.04	1.61
1971	2.01	1.76	1.78	1.86	1.89	1.86	1.87	1.87	1.88	1.90	1.98	2.05	1.86	1.73
1972	2.11	2.09	2.19	2.72	2.72	2.60	2.60	2.56	2.66	3.10	3.46	3.64	2.45	1.79
1973	3.87	3.65	3.66	3.83	4.03	4.38	4.25	3.78	3.59	3.59	4.15	5.07	3.82	1.79
1974	5.30	5.78	5.85	5.33	4.96	4.21	4.03	4.15	4.21	4.15	4.25	4.69	4.95	1.88
1975	4.56	4.43	4.05	4.00	4.06	4.09	4.14	4.14	4.14	4.29	4.53	4.03	4.23	1.88
1976	4.20	3.68	3.30	3.51	3.59	3.51	3.55	3.44	3.20	3.12	2.84	2.63	3.62	2.55
1977	2.52	2.80	3.03	3.05	3.15	3.20	3.39	3.62	3.66	3.64	3.50	3.37	3.25	3.39
1978	3.22	3.35	3.45	3.58	3.54	3.55	3.54	3.58	3.66	4.30	4.46	4.27	3.59	3.39
1979	4.24	3.90	3.99	3.90	4.05	3.98	4.05	3.96	4.04	4.49	4.95	5.12	4.19	3.57
1980	5.12	5.36	5.48	5.49	5.48	5.33	5.17	5.25	5.16	5.03	4.84	4.55	5.19	3.82
1981	4.07	3.90	3.87	3.95	4.09	4.08	4.00	4.10	4.35	4.17	3.96	3.95	4.01	4.07
1982	3.80	3.70	3.78	3.97	4.09	4.42	4.67	4.92	5.05	5.05	5.03	5.29	4.41	4.32
1983	5.26	5.01	4.98	4.93	4.92	4.74	4.85	5.00	5.08	4.94	4.64	4.58	4.89	4.50
1984	4.24	4.05	4.05	4.15	4.16	4.10	4.24	4.46	4.54	4.52	4.04	3.74	4.15	4.32
1985	3.27	3.30	3.47	3.76	3.69	3.55	3.67	3.80	3.99	3.43	3.06	2.66	3.45	4.32
1986	2.36	2.34	2.38	2.41	2.37	2.36	2.45	2.58	2.69	2.79	2.66	2.52	2.45	3.25
1987	2.43	2.48	2.69	2.72	2.75	2.88	2.92	2.94	2.90	4.13	4.56	4.41	2.79	3.11
1988	4.24	4.17	3.98	3.99 3/	4.07									3.00

Year	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Average 2/	Loan rate
							$/bu.							
Oats:														
1970	0.61	0.58	0.57	0.61	0.61	0.63	0.65	0.67	0.68	0.66	0.63	0.66	0.62	0.63
1971	0.72	0.63	0.56	0.57	0.58	0.60	0.62	0.64	0.64	0.64	0.64	0.64	0.60	0.54
1972	0.67	0.66	0.62	0.64	0.67	0.70	0.81	0.81	0.78	0.77	0.77	0.80	0.72	0.54
1973	0.90	0.86	1.13	1.09	1.14	1.13	1.20	1.32	1.44	1.40	1.24	1.27	1.18	0.54
1974	1.30	1.37	1.55	1.57	1.68	1.70	1.70	1.62	1.58	1.46	1.51	1.54	1.53	0.54
1975	1.49	1.45	1.44	1.45	1.41	1.40	1.42	1.44	1.46	1.46	1.44	1.47	1.46	0.54
1976	1.64	1.64	1.48	1.49	1.46	1.45	1.51	1.58	1.63	1.64	1.64	1.52	1.56	0.72
1977	1.29	1.02	0.93	0.94	1.04	1.10	1.13	1.18	1.22	1.17	1.19	1.24	1.09	1.03
1978	1.16	1.08	1.06	1.06	1.08	1.15	1.19	1.22	1.25	1.27	1.29	1.29	1.20	1.03
1979	1.35	1.33	1.24	1.29	1.31	1.41	1.31	1.39	1.37	1.34	1.38	1.43	1.33	1.08
1980	1.48	1.50	1.53	1.63	1.65	1.84	1.92	1.98	2.01	2.08	2.05	2.05	1.72	1.16
1981	1.99	1.84	1.72	1.74	1.78	1.88	1.94	1.97	1.99	2.02	1.99	1.99	1.88	1.24
1982	1.88	1.57	1.39	1.35	1.32	1.40	1.44	1.46	1.48	1.49	1.54	1.54	1.49	1.31
1983	1.51	1.46	1.45	1.55	1.62	1.67	1.73	1.81	1.88	1.81	1.82	1.84	1.62	1.36
1984	1.80	1.68	1.62	1.60	1.69	1.64	1.72	1.74	1.69	1.68	1.68	1.60	1.67	1.31
1985	1.59	1.31	1.16	1.10	1.08	1.17	1.20	1.18	1.16	1.14	1.13	1.21	1.23	1.31
1986	1.10	0.90	0.86	0.99	1.11	1.32	1.44	1.46	1.47	1.45	1.50	1.57	1.21	0.99
1987	1.52	1.29	1.40	1.49	1.60	1.62	1.76	1.79	1.84	1.78	1.82	1.84	1.56	0.94
1988	2.63	2.86	2.54	2.57	2.56	2.42	2.46 3/	2.43						0.90

See footnotes at end of table.

Continued--

Table 8--Average prices received by farmers, United States, by month, and loan rate, 1970-88 1/--Continued

Year	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar	Apr.	May	Average 2/	Loan rate
							$/bu.							
All barley:														
1970	0.94	0.90	0.85	0.91	0.93	0.96	1.02	1.02	1.03	1.02	1.03	1.12	0.97	0.83
1971	1.15	1.07	0.87	0.92	0.96	1.02	1.04	1.04	1.01	0.98	0.99	1.04	0.99	0.86
1972	1.09	1.04	0.96	1.07	1.17	1.21	1.32	1.42	1.34	1.31	1.31	1.39	1.21	0.86
1973	1.55	1.58	2.10	2.16	2.23	2.10	2.19	2.32	2.52	2.61	2.15	2.19	2.14	0.86
1974	2.25	2.35	2.78	2.86	3.11	3.41	3.30	3.17	2.89	2.55	2.72	2.75	2.81	0.90
1975	2.30	2.35	2.56	2.69	2.68	2.43	2.35	2.31	2.31	2.34	2.31	2.41	2.42	0.90
1976	2.60	2.51	2.35	2.33	2.22	2.11	2.08	2.19	2.19	2.25	2.22	2.12	2.25	1.22
1977	1.93	1.53	1.53	1.69	1.63	1.82	1.79	1.90	1.98	1.90	1.93	2.15	1.78	1.63
1978	2.04	1.83	1.86	1.85	1.90	1.93	1.90	1.95	1.87	1.89	1.96	2.07	1.92	1.63
1979	2.30	2.22	2.23	2.33	2.32	2.40	2.32	2.27	2.23	2.18	2.15	2.21	2.27	1.71
1980	2.36	2.52	2.59	2.65	2.81	2.90	2.97	3.09	3.05	3.04	3.04	3.00	2.79	1.83
1981	2.94	2.41	2.37	2.44	2.38	2.49	2.48	2.50	2.40	2.40	2.42	2.53	2.48	1.95
1982	2.39	2.16	2.20	2.17	1.98	2.06	2.19	2.16	2.00	2.09	2.22	2.36	2.18	2.08
1983	2.32	2.20	2.34	2.46	2.53	2.55	2.55	2.55	2.47	2.50	2.54	2.78	2.47	2.16
1984	2.61	2.54	2.26	2.25	2.29	2.25	2.19	2.24	2.21	2.18	2.16	2.22	2.29	2.08
1985	2.14	2.08	1.98	1.88	1.96	2.05	2.07	2.05	1.95	1.88	1.85	1.73	1.98	2.08
1986	1.57	1.67	1.51	1.45	1.58	1.69	1.61	1.60	1.63	1.69	1.69	1.76	1.59	1.56
1987	1.74	1.82	2.00	1.87	1.72	1.88	1.83	1.78	1.72	1.65	1.74	1.77	1.81	1.49
1988	2.45	2.97	2.96	2.94	2.86	2.95	2.74 3/	2.65						1.44

Year	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
							$/bu.					
Feed barley:												
1979	2.38	2.22	2.21	2.29	2.20	2.18	2.23	2.14	2.24	2.16	2.09	2.21
1980	2.38	2.43	2.46	2.56	2.70	2.75	2.96	3.09	2.98	2.99	2.90	3.01
1981	2.98	2.36	2.23	2.32	2.30	2.29	2.29	2.41	2.28	2.29	2.35	2.58
1982	2.52	2.23	1.98	1.91	1.87	1.94	1.98	2.07	1.99	2.08	2.26	2.43
1983	2.52	2.31	2.23	2.41	2.45	2.51	2.52	2.58	2.47	2.54	2.55	2.86
1984	2.72	2.60	2.10	2.13	2.19	2.19	2.20	2.22	2.27	2.19	2.16	2.30
1985	2.26	2.05	1.75	1.74	1.85	1.90	2.03	2.00	1.90	1.83	1.85	1.81
1986	1.61	1.44	1.21	1.33	1.49	1.62	1.59	1.56	1.61	1.69	1.71	1.84
1987	1.79	1.59	1.54	1.57	1.65	1.68	1.63	1.65	1.64	1.59	1.73	1.76
1988	2.07	2.34	2.37	2.39	2.34	2.30	2.27	3/ 2.31				
Malting barley:												
1979	2.18	2.22	2.24	2.40	2.44	2.53	2.39	2.30	2.23	2.20	2.19	2.21
1980	2.34	2.61	2.72	2.81	2.97	3.04	2.99	3.08	3.11	3.10	3.14	2.99
1981	2.86	2.48	2.58	2.66	2.49	2.68	2.63	2.70	2.55	2.50	2.48	2.42
1982	2.26	2.10	2.38	2.58	2.22	2.26	2.39	2.32	2.00	2.09	2.13	2.18
1983	2.05	2.06	2.50	2.69	2.72	2.61	2.61	2.50	2.47	2.46	2.54	2.53
1984	2.52	2.48	2.50	2.52	2.52	2.39	2.18	2.29	2.11	2.17	2.17	2.10
1985	2.02	2.13	2.49	2.33	2.24	2.32	2.19	2.13	1.99	1.93	1.85	1.66
1986	1.52	2.07	2.23	1.85	1.83	1.78	1.65	1.70	1.69	1.69	1.65	1.66
1987	1.68	2.04	2.55	2.39	1.88	2.07	2.01	2.15	1.80	1.69	1.75	1.79
1988	2.80	3.26	3.38	3.47	3.41	3.34	3.27	3/ 3.17				

1/ Prices do not include an allowance for loans outstanding and government purchases. 2/ U.S. season average prices based on monthly prices weighted by monthly marketings. 3/ Preliminary.

Source: Agricultural Prices, Agricultural Statistics Board, USDA.

Table 9--Cash prices at principal markets, 1971-88

Year	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Average
						$/bu.							
Corn, no. 2 yellow; Gulf Ports:													
1971	1.26	1.17	1.24	1.32	1.30	1.31	1.33	1.36	1.38	1.34	1.37	1.41	1.32
1972	1.50	1.45	1.50	1.70	2.01	2.06	2.03	1.95	2.20	2.58	2.78	3.11	2.07
1973	2.72	2.70	2.74	2.87	3.11	3.33	3.21	2.90	2.89	2.96	3.36	3.70	3.04
1974	3.59	3.86	3.68	3.69	3.34	3.06	3.05	3.03	2.90	3.02	3.03	3.29	3.30
1975	3.11	2.98	2.80	2.77	2.80	2.88	2.87	2.82	3.00	3.09	3.08	2.95	2.93
1976	2.92	2.70	2.51	2.63	2.83	2.81	2.73	2.68	2.56	2.40	2.16	1.95	2.57
1977	1.99	2.11	2.37	2.44	2.42	2.57	2.64	2.83	2.86	2.70	2.45	2.34	2.48
1978	2.31	2.44	2.54	2.49	2.66	2.72	2.77	2.83	2.85	3.05	3.33	3.02	2.75
1979	3.00	3.03	2.96	2.94	2.68	2.89	2.80	2.74	2.81	2.89	3.33	3.64	2.98
1980	3.58	3.57	3.72	3.73	3.78	3.64	3.61	3.69	3.58	3.46	3.51	3.23	3.59
1981	2.93	2.84	2.83	2.74	2.92	2.87	2.92	3.00	3.00	2.94	2.82	2.58	2.87
1982	2.55	2.33	2.62	2.68	2.74	2.98	3.18	3.39	3.40	3.43	3.57	3.88	3.06
1983	3.75	3.76	3.74	3.64	3.60	3.48	3.74	3.76	3.71	3.73	3.62	3.52	3.67
1984	3.31	3.08	2.98	2.90	3.03	3.04	3.05	3.05	2.96	2.95	2.92	2.67	3.00
1985	2.59	2.50	2.69	2.75	2.72	2.63	2.56	2.57	2.68	2.63	2.12	1.85	2.52
1986	1.68	1.66	1.83	1.81	1.73	1.70	1.83	1.89	2.06	2.06	1.95	1.81	1.83
1987	1.86	2.00	2.08	2.11	2.32	2.23	2.30	2.28	2.29	3.05	3.22	3.02	2.40
1988	3.08	2.94	2.89	2.99	3.01								
Corn, no. 2 yellow, St. Louis:													
1971	1.06	1.01	1.07	1.17	1.16	1.17	1.17	1.21	1.24	1.22	1.25	1.26	1.17
1972	1.35	1.26	1.32	1.55	1.60	1.71	1.57	1.62	1.95	2.36	2.46	2.76	1.79
1973	2.29	2.28	2.40	2.63	2.84	3.03	2.91	2.64	2.63	2.82	3.29	3.52	2.77
1974	3.49	3.60	3.45	3.44	3.16	2.93	2.87	2.89	2.76	2.86	2.90	3.10	3.12
1975	2.90	2.62	2.53	2.56	2.60	2.66	2.69	2.66	2.81	2.90	2.91	2.78	2.72
1976	2.69	2.41	2.27	2.44	2.51	2.48	2.48	2.46	2.37	2.22	1.99	1.72	2.34
1977	1.66	1.75	2.14	2.23	2.30	2.24	2.38	2.46	2.49	2.45	2.27	2.12	2.21
1978	2.05	2.13	2.25	2.30	2.33	2.41	2.47	2.53	2.60	2.77	2.95	2.73	2.46
1979	2.68	2.59	2.51	2.66	2.50	2.64	2.54	2.53	2.60	2.66	3.01	3.31	2.69
1980	3.26	3.35	3.53	3.59	3.60	3.47	3.42	3.49	3.42	3.33	3.34	3.03	3.40
1981	2.61	2.53	2.59	2.54	2.65	2.61	2.66	2.78	2.78	2.75	2.68	2.42	2.63
1982	2.32	2.12	2.43	2.49	2.52	2.79	2.99	3.24	3.24	3.27	3.39	3.68	2.87
1983	3.60	3.50	3.53	3.45	3.41	3.31	3.55	3.61	3.58	3.57	3.43	3.33	3.49
1984	3.09	2.84	2.77	2.75	2.86	2.84	2.86	2.88	2.81	2.79	2.72	2.47	2.81
1985	2.38	2.27	2.50	2.59	2.55	2.50	2.42	2.46	2.56	2.52	2.01	1.67	2.37
1986	1.47	1.46	1.68	1.69	1.61	1.57	1.65	1.74	1.93	1.92	1.79	1.65	1.68
1987	1.65	1.78	1.91	1.97	2.05	2.07	2.09	2.10	2.13	2.77	2.96	2.81	2.19
1988	2.82	2.82	2.70	2.76	2.81								
Corn, no. 2 yellow, Omaha:													
1971	1.15	1.14	1.15	1.24	1.25	1.23	1.23	1.25	1.27	1.23	1.24	1.21	1.22
1972	1.28	1.28	1.34	1.49	1.50	1.55	1.49	1.51	1.84	2.25	2.32	2.71	1.71
1973	2.37	2.34	2.40	2.49	2.71	2.95	2.76	2.49	2.51	2.68	3.19	3.55	2.70
1974	3.46	3.63	3.46	3.36	3.07	2.79	2.75	2.85	2.81	2.84	2.92	3.12	3.09
1975	2.95	2.75	2.55	2.56	2.57	2.60	2.62	2.59	2.74	2.86	2.83	2.69	2.69
1976	2.59	2.36	2.17	2.30	2.38	2.38	2.35	2.29	2.21	2.10	1.90	1.66	2.22
1977	1.67	1.79	2.02	2.04	2.02	2.03	2.14	2.25	2.34	2.33	2.13	1.98	2.06
1978	1.95	2.05	2.04	2.09	2.12	2.13	2.17	2.26	2.40	2.59	2.68	2.45	2.24
1979	2.37	2.37	2.32	2.36	2.26	2.33	2.23	2.32	2.43	2.50	2.81	2.98	2.44
1980	3.01	3.16	3.34	3.30	3.29	3.18	3.17	3.24	3.24	3.19	3.15	2.79	3.17
1981	2.51	2.44	2.39	2.37	2.47	2.45	2.48	2.61	2.65	2.65	2.54	2.23	2.48
1982	2.23	2.12	2.35	2.37	2.42	2.62	2.82	3.09	3.10	3.11	3.18	3.39	2.73
1983	3.32	3.23	3.24	3.17	3.11	3.03	3.25	3.33	3.35	3.37	3.22	3.11	3.23
1984	2.94	2.71	2.61	2.55	2.60	2.61	2.68	2.73	2.68	2.70	2.61	2.39	2.65
1985	2.35	2.26	2.28	2.36	2.33	2.31	2.31	2.34	2.43	2.42	2.01	1.61	2.25
1986	1.41	1.40	1.55	1.54	1.44	1.39	1.47	1.57	1.76	1.77	1.59	1.47	1.53
1987	1.51	1.57	1.68	1.75	1.79	1.84	1.86	1.87	1.96	2.64	2.72	2.55	1.98
1988	2.57	2.61	2.47	2.54	2.57								

See footnotes at end of table.

Continued--

Table 9--Cash prices at principal markets, 1971-88--Continued

Year	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Average
						$/bu.							
Corn, no. 2 yellow, Chicago:													
1971	1.16	1.10	1.07	1.22	1.21	1.21	1.22	1.26	1.28	1.25	1.29	1.29	1.21
1972	1.40	1.32	1.33	1.57	1.58	1.59	1.59	1.65	2.01	2.42	2.52	2.91	1.82
1973	2.47	2.37	2.50	2.68	2.90	3.13	2.99	2.69	2.70	2.93	3.35	3.63	2.86
1974	3.55	3.74	3.48	3.47	3.19	2.96	2.90	2.96	2.82	2.89	2.95	3.12	3.17
1975	2.99	2.74	2.58	2.59	2.62	2.70	2.68	2.68	2.84	2.96	2.96	2.84	2.77
1976	2.77	2.49	2.33	2.44	2.53	2.54	2.52	2.50	2.41	2.27	2.05	1.78	2.39
1977	1.80	1.84	2.14	2.19	2.19	2.21	2.36	2.51	2.57	2.51	2.28	2.17	2.23
1978	2.13	2.22	2.28	2.27	2.29	2.35	2.42	2.53	2.66	2.83	3.00	2.83	2.48
1979	2.78	2.73	2.59	2.69	2.54	2.65	2.60	2.61	2.70	2.70	3.08	3.36	2.75
1980	3.44	3.43	3.43	3.54	3.56	3.49	3.48	3.53	3.47	3.41	3.41	3.09	3.44
1981	2.72	2.61	2.60	2.52	2.63	2.63	2.67	2.69	2.73	2.72	2.61	2.36	2.62
1982	2.17	2.07	2.38	2.44	2.54	2.74	2.98	3.12	3.11	3.28	3.33	3.60	2.81
1983	3.52	3.47	3.51	3.38	3.30	3.29	3.52	3.61	3.61	3.62	3.45	3.23	3.46
1984	2.95	2.81	2.79	2.72	2.79	2.79	2.84	2.90	2.85	2.83	2.76	2.50	2.79
1985	2.31	2.26	2.46	2.50	2.51	2.49	2.45	2.46	2.55	2.52	1.98	1.68	2.35
1986	1.49	1.51	1.68	1.66	1.57	1.50	1.60	1.69	1.89	1.88	1.68	1.53	1.64
1987	1.62	1.73	1.86	1.89	1.95	2.01	2.03	2.03	2.09	2.74	2.93	2.79	2.14
1988	2.79	2.81	2.65	2.69	2.74								
						$/cwt							
Grain sorghum no. 2 yellow, Gulf Ports:													
1971	2.19	2.18	2.29	2.43	2.41	2.42	2.43	2.44	2.34	2.26	2.36	2.47	2.35
1972	2.64	2.58	2.76	3.32	3.69	3.56	3.46	3.38	3.56	3.96	4.52	5.14	3.55
1973	4.78	4.96	4.84	4.96	5.25	5.50	5.15	4.68	4.35	4.25	5.26	5.80	4.98
1974	5.84	6.77	6.63	6.35	5.39	4.95	5.04	5.06	5.02	4.80	4.69	5.55	5.51
1975	5.36	5.24	4.94	4.91	4.92	4.99	5.01	4.89	4.89	4.97	5.13	4.60	4.99
1976	4.80	4.45	4.24	4.37	4.52	4.52	4.43	4.25	4.16	3.82	3.64	3.43	4.22
1977	3.49	3.68	4.08	4.08	4.00	4.08	4.34	4.59	4.62	4.40	4.11	3.98	4.12
1978	3.95	4.26	4.38	4.34	4.40	4.44	4.46	4.46	4.56	4.96	5.40	5.05	4.55
1979	5.11	5.27	5.28	5.36	5.10	5.39	5.20	5.19	5.29	5.42	6.03	6.49	5.43
1980	6.43	6.48	6.79	6.71	6.65	6.46	6.40	6.38	6.34	5.76	5.60	5.29	6.27
1981	5.00	4.91	5.10	5.08	5.27	5.14	5.11	5.21	5.30	5.01	4.66	4.54	5.03
1982	4.36	4.44	5.00	5.06	5.20	5.49	5.64	5.98	6.05	5.78	5.68	6.18	5.41
1983	6.15	5.99	6.01	5.94	5.87	5.70	5.93	5.88	5.98	5.84	5.05	4.86	5.77
1984	4.75	4.60	4.84	5.04	5.19	5.10	5.32	5.36	5.23	4.78	4.49	4.04	4.90
1985	3.70	3.97	4.34	4.52	4.45	4.30	4.28	4.50	4.80	3.90	3.37	2.71	4.07
1986	2.95	3.15	3.26	3.16	3.03	3.04	3.34	3.28	3.51	3.47	3.30	3.04	3.21
1987	3.13	3.35	3.56	3.49	3.64	3.80	3.86	3.72	3.63	5.17	5.17	4.93	3.95
1988	4.98	4.92	4.64	5.02	5.06								
Sorghum, no. 2 yellow, Kansas City:													
1971	1.91	1.80	1.91	2.06	2.06	2.07	2.07	2.09	2.08	2.06	2.11	2.05	2.02
1972	2.21	2.17	2.42	2.88	3.06	2.88	2.86	2.83	3.09	3.61	3.93	4.72	3.06
1973	4.37	4.37	4.31	4.37	4.71	4.99	4.64	4.03	3.84	3.99	5.02	5.79	4.53
1974	5.64	6.32	6.10	5.70	4.95	4.55	4.48	4.64	4.60	4.53	4.82	5.13	5.12
1975	4.66	4.53	4.36	4.33	4.36	4.47	4.62	4.47	4.47	4.66	4.73	4.29	4.50
1976	4.27	3.88	3.60	3.77	3.91	3.85	3.75	3.62	3.53	3.28	3.15	2.73	3.61
1977	2.78	3.05	3.40	3.36	3.37	3.49	3.78	3.92	3.92	3.82	3.54	3.41	3.49
1978	3.43	3.61	3.67	3.64	3.71	3.73	3.77	3.81	3.92	4.41	4.89	4.44	3.92
1979	4.34	4.42	4.41	4.57	4.21	4.35	4.20	4.15	4.31	4.49	5.36	5.71	4.54
1980	5.61	5.65	5.91	5.82	5.79	5.52	5.46	5.49	5.38	5.23	5.29	4.58	5.48
1981	4.16	4.14	4.14	4.27	4.44	4.26	4.28	4.45	4.48	4.50	4.38	4.02	4.29
1982	4.06	3.85	4.25	4.37	4.37	4.54	5.08	5.30	5.37	5.37	5.32	5.69	4.80
1983	5.55	5.37	5.25	5.16	5.09	5.03	5.40	5.36	5.39	5.40	4.95	4.74	5.22
1984	4.46	4.25	4.28	4.32	4.48	4.33	4.58	4.76	4.74	4.74	4.50	4.06	4.46
1985	3.56	3.62	3.75	3.97	3.95	3.80	3.82	4.00	4.25	4.00	3.20	2.71	3.72
1986	2.47	2.60	2.70	2.62	2.50	2.57	2.80	2.85	3.10	3.20	2.80	2.55	2.73
1987	2.64	2.75	2.90	2.95	3.05	3.24	3.27	3.16	3.21	4.58	4.79	4.28	3.40
1988	4.27	4.17	4.00	4.23	4.24								

See footnotes at end of table.

Continued--

Table 9--Cash prices at principal markets, 1971-88--Continued

Year	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Average
						$/cwt.							
Sorghum, no. 2 yellow, Texas High Plains:													
1971	2.42	1.99	1.99	2.08	2.12	2.08	2.08	2.11	2.13	2.14	2.18	2.21	2.13
1972	2.28	2.26	2.48	2.98	3.03	2.98	3.01	2.96	3.20	3.69	3.77	5.21	3.15
1973	4.50	4.44	4.40	4.43	4.75	5.22	4.89	4.42	4.22	4.08	4.91	5.80	4.67
1974	5.74	6.26	6.12	5.82	5.00	4.52	4.41	4.70	4.64	4.63	4.67	5.23	5.14
1975	5.03	4.56	4.32	4.32	4.29	4.38	4.47	4.48	4.49	4.63	5.01	4.40	4.53
1976	4.33	3.97	3.73	3.79	3.86	3.86	3.86	3.77	3.67	3.50	3.46	3.10	3.74
1977	3.13	3.38	3.58	3.63	3.62	3.67	4.04	4.28	4.25	4.27	4.12	3.93	3.82
1978	3.85	4.06	4.13	4.08	4.04	4.05	4.01	4.06	4.21	4.83	5.39	4.97	4.31
1979	4.92	4.83	4.76	4.75	4.49	4.56	4.46	4.48	4.78	4.99	5.71	5.89	4.88
1980	5.95	6.27	6.62	6.42	6.26	5.93	5.79	5.88	5.90	5.83	5.80	5.02	5.97
1981	4.65	4.70	4.71	4.63	4.77	4.78	4.75	4.91	5.26	5.28	5.24	4.80	4.87
1982	4.39	4.08	4.38	4.65	4.82	5.19	5.52	5.94	5.76	5.81	5.86	5.85	5.19
1983	5.77	5.56	5.49	5.43	5.35	5.14	5.33	5.68	5.67	5.77	5.72	5.46	5.53
1984	5.22	4.95	4.86	4.90	4.84	4.86	4.98	5.14	5.22	5.25	5.24	NQ	5.04
1985	4.19	4.38	4.30	4.49	4.47	4.36	4.33	4.48	4.77	4.84	3.93	3.36	4.32
1986	3.35	3.24	2.97	3.06	2.94	2.89	3.06	3.32	3.56	3.60	3.58	3.30	3.24
1987	3.19	3.27	3.27	3.39	3.40	3.53	3.56	3.54	3.55	4.84	5.25	4.96	3.81
1988	4.98	4.95	4.62	4.63	4.75								

Year	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Average
						$/bu.							
Barley, no. 3 or better malting, 65% or better plump, Minneapolis:													
1971	1.30	1.25	1.10	1.11	1.17	1.17	1.17	1.20	1.19	1.19	1.19	1.20	1.19
1972	1.22	1.22	1.21	1.26	1.34	1.34	1.45	1.59	1.58	1.61	1.64	1.66	1.43
1973	1.74	1.82	2.45	2.64	2.64	2.62	2.64	2.76	3.27	3.57	2.98	2.94	2.67
1974	3.11	3.38	3.77	4.00	4.42	4.78	4.65	4.62	4.45	4.15	4.34	4.28	4.16
1975	3.97	3.83	3.65	3.93	3.83	3.56	3.35	3.24	3.21	3.22	3.17	3.22	3.52
1976	3.55	3.59	3.37	3.24	3.21	3.00	2.95	3.00	2.91	2.98	2.91	2.83	3.13
1977	2.38	2.02	1.92	2.15	2.25	2.36	2.32	2.26	2.33	2.32	2.44	2.51	2.27
1978	2.39	2.13	2.19	2.27	2.26	2.47	2.40	2.30	2.33	2.46	2.59	2.73	2.38
1979	2.80	2.82	2.67	3.10	3.18	3.06	2.93	2.87	2.81	2.69	2.73	2.82	2.87
1980	2.99	3.36	3.27	3.63	3.80	3.88	3.77	3.75	3.83	3.71	3.84	3.80	3.64
1981	3.34	2.95	3.15	3.05	3.02	3.07	2.92	3.00	3.14	2.99	2.98	3.05	3.06
1982	2.93	2.63	2.48	2.37	2.42	2.45	2.37	2.38	2.42	2.45	2.68	2.76	2.53
1983	2.60	2.54	2.76	2.90	2.96	2.95	2.77	2.85	2.76	2.91	3.04	3.06	2.84
1984	3.04	2.86	2.48	2.44	2.43	2.43	2.36	2.46	2.47	2.51	2.52	2.55	2.55
1985	2.46	2.25	2.03	2.15	2.10	2.27	2.29	2.28	2.20	2.34	2.40	2.07	2.24
1986	1.84	1.75	1.61	1.76	1.93	2.02	1.88	1.81	1.92	2.01	2.05	2.12	1.89
1987	2.07	1.93	1.73	1.98	2.08	2.05	2.01	2.02	2.15	2.08	2.11	2.24	2.04
1988	3.61	3.87	4.25	4.40	4.39	4.14	3.82	4.14					
Barley, no. 2 feed, Minneapolis 1/, 2/:													
1971	1.08	1.00	0.95	0.99	1.04	1.04	1.04	1.07	1.07	1.05	1.06	1.08	1.04
1972	1.05	0.96	0.98	1.11	1.16	1.14	1.27	1.34	1.20	1.19	1.25	1.36	1.17
1973	1.51	1.67	2.12	2.12	2.02	1.80	2.12	2.34	2.51	2.32	1.74	2.10	2.03
1974	2.36	2.36	2.69	2.48	3.07	3.17	2.89	2.82	2.59	2.26	2.24	2.05	2.58
1975	1.67	2.04	2.77	3.00	2.83	2.42	2.23	2.11	2.26	2.38	2.39	2.50	2.38
1976	2.62	2.45	2.48	2.68	2.46	2.21	2.05	2.20	2.35	2.29	2.28	2.13	2.35
1977	1.76	1.63	1.50	1.58	1.66	1.65	1.65	1.65	1.65	1.66	1.91	1.90	1.68
1978	1.84	1.71	1.68	1.77	1.81	1.88	1.79	1.71	1.69	1.86	1.89	1.96	1.80
1979	2.16	2.39	2.15	2.22	2.34	2.11	2.15	2.09	2.04	2.06	2.12	2.09	2.16
1980	2.15	2.48	2.39	2.43	2.77	3.03	2.75	2.81	2.90	2.63	2.51	2.39	2.60
1981	2.09	2.26	2.35	2.21	2.26	2.31	2.06	2.20	2.27	2.16	2.16	2.24	2.21
1982	2.12	1.85	1.72	1.69	1.54	1.58	1.59	1.63	1.72	1.73	2.01	1.95	1.76
1983	1.96	1.95	2.42	2.61	2.60	2.53	2.39	2.55	2.56	2.65	2.74	2.77	2.48
1984	2.59	2.18	2.13	2.05	2.10	2.06	1.88	1.98	1.99	1.97	2.05	2.05	2.09
1985	1.90	1.66	1.46	1.40	1.41	1.49	1.60	1.57	NA	NA	NA	1.31	1.53
1986	1.23	1.16	1.13	1.27	1.50	1.63	1.23	NA	NA	1.64	1.76	1.86	1.44
1987	1.73	1.59	1.60	1.76	1.78	1.82	1.74	1.72	1.77	1.88	1.94	1.98	1.78
1988	2.41	2.31	2.08	2.24	2.32	2.27	2.14	2.24					

See footnotes at end of table.

Continued--

Table 9--Cash prices at principal markets, 1971-88--Continued

Year	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Average
						$/bu.							
Barley, no. 2 Western, Portland:													
1971	1.30	1.12	0.99	1.04	1.06	1.17	1.20	1.20	1.23	1.24	1.22	1.22	1.17
1972	1.16	1.22	1.34	1.41	1.52	1.58	1.66	1.91	1.83	1.79	1.73	1.84	1.58
1973	2.01	2.31	2.58	2.61	2.63	2.70	2.63	2.85	2.93	2.93	2.36	2.39	2.58
1974	2.51	2.79	3.14	3.23	3.41	3.68	3.56	3.18	2.82	2.47	2.75	2.68	3.02
1975	2.47	2.04	2.77	3.01	2.82	2.46	2.38	2.45	2.56	2.56	2.44	2.50	2.54
1976	2.65	2.70	2.55	2.61	2.49	2.28	2.28	2.50	2.63	2.34	2.36	2.41	2.48
1977	2.19	2.10	1.96	2.00	1.97	2.04	2.13	2.19	2.20	2.24	2.39	2.41	2.15
1978	2.41	2.24	2.22	2.02	1.94	1.97	2.05	2.08	1.98	2.04	2.09	2.14	2.10
1979	2.47	2.89	2.76	2.75	2.69	2.57	2.67	2.68	2.79	2.67	2.63	2.71	2.69
1980	2.78	3.03	2.88	2.93	3.34	3.56	3.63	3.68	3.71	3.58	3.48	3.50	3.34
1981	3.21	2.83	2.76	2.73	2.67	2.73	2.73	2.97	2.94	2.91	2.99	3.01	2.87
1982	2.82	2.54	2.56	2.46	2.22	2.49	2.40	2.45	2.44	2.49	2.61	2.73	2.52
1983	2.60	2.48	2.70	2.91	2.98	3.02	3.00	3.13	2.90	2.91	3.13	3.17	2.91
1984	3.05	2.59	2.57	2.53	2.58	2.62	2.65	2.58	2.56	2.49	2.46	2.44	2.59
1985	2.37	2.26	2.13	2.06	2.17	2.31	2.47	2.37	2.16	2.15	2.17	2.16	2.22
1986	1.98	1.79	1.75	1.73	1.97	2.01	1.86	2.00	2.12	2.09	2.11	2.17	1.97
1987	2.04	1.96	2.04	2.04	2.11	2.13	2.16	2.15	2.14	2.10	2.07	2.14	2.09
1988	2.67	2.80	2.72	2.66	2.65	2.77	2.75	2.75					
Oats, no. 2 Heavy White, Toledo:													
1971	0.85	0.75	0.71	0.72	0.76	0.81	0.83	0.81	0.82	0.80	0.77	0.81	0.79
1972	0.82	0.82	0.86	0.88	0.89	0.88	1.09	1.00	1.01	0.92	0.98	1.02	0.93
1973	1.01	1.04	1.23	1.27	1.31	1.32	1.49	1.63	1.75	1.67	1.48	1.46	1.39
1974	1.50	1.59	1.74	1.72	1.85	1.88	1.88	1.75	1.72	1.60	1.67	1.64	1.71
1975	1.61	1.52	1.47	1.41	1.35	1.48	1.49	1.53	1.58	1.56	1.52	1.54	1.50
1976	1.73	1.58	1.51	1.54	1.57	1.65	1.77	1.83	1.91	1.85	1.80	1.81	1.71
1977	1.61	1.33	1.19	1.15	1.17	1.40	1.53	1.53	1.50	1.43	1.47	1.51	1.40
1978	1.49	1.29	1.27	1.24	1.29	1.39	1.39	1.42	1.44	1.39	1.38	1.45	1.37
1979	1.59	1.60	1.47	1.44	1.45	1.56	1.64	1.64	1.64	1.65	1.70	1.80	1.60
1980	1.89	1.79	1.78	1.85	2.00	2.22	2.39	2.51	2.49	2.39	2.36	2.39	2.17
1981	2.40	2.03	1.98	1.97	2.14	2.31	2.25	2.32	2.37	2.35	2.31	2.33	2.23
1982	2.17	1.61	1.39	1.34	1.37	1.49	1.58	1.58	1.54	1.52	1.52	1.53	1.55
1983	1.56	1.54	1.77	1.98	2.12	2.21	2.24	2.25	2.07	2.12	2.16	2.08	2.01
1984	2.06	2.06	2.00	1.95	1.92	1.96	1.94	1.96	1.96	1.88	1.75	1.60	1.92
1985	1.54	1.33	1.04	0.96	0.91	1.01	1.09	1.08	1.10	1.08	0.95	0.92	1.08
1986	0.81	0.82	0.83	0.81	0.93	1.23	1.43	1.52	1.55	1.34	1.44	1.69	1.20
1987	1.56	1.24	1.55	1.62	1.62	1.77	1.83	1.83	1.87	1.77	1.73	1.73	1.68
1988	2.71	2.79	2.66	2.55	2.41	2.04	2.08	2.25					
Oats, no. 2 Heavy White, Minneapolis:													
1971	0.70	0.63	0.61	0.64	0.64	0.66	0.68	0.69	0.69	0.66	0.67	0.70	0.66
1972	0.70	0.69	0.70	0.71	0.76	0.81	0.91	0.88	0.84	0.84	0.86	0.91	0.80
1973	0.93	0.93	1.28	1.32	1.26	1.25	1.32	1.55	1.66	1.52	1.26	1.35	1.30
1974	1.43	1.63	1.68	1.71	1.87	1.80	1.74	1.64	1.64	1.49	1.72	1.78	1.68
1975	1.59	1.59	1.70	1.68	1.64	1.69	1.65	1.67	1.66	1.64	1.67	1.72	1.66
1976	1.93	1.84	1.67	1.67	1.66	1.62	1.67	1.78	1.80	1.76	1.81	1.68	1.74
1977	1.38	1.15	1.02	1.11	1.17	1.34	1.32	1.32	1.32	1.33	1.40	1.43	1.27
1978	1.36	1.24	1.28	1.36	1.39	1.47	1.40	1.47	1.54	1.60	1.48	1.55	1.43
1979	1.68	1.60	1.47	1.55	1.65	1.67	1.59	1.52	1.50	1.48	1.52	1.62	1.57
1980	1.67	1.80	1.70	1.86	1.96	2.15	2.16	2.20	2.25	2.23	2.21	2.23	2.04
1981	2.18	2.02	1.99	2.02	2.09	2.28	2.10	2.23	2.26	2.16	2.21	2.16	2.14
1982	2.12	1.87	1.53	1.51	1.51	1.67	1.67	1.67	1.63	1.63	1.73	1.71	1.69
1983	1.67	1.60	1.79	1.94	2.00	1.97	1.94	1.98	1.82	1.88	1.89	1.96	1.87
1984	1.92	1.84	1.77	1.79	1.84	1.92	1.87	1.81	1.82	1.79	1.73	1.65	1.81
1985	1.59	1.44	1.23	1.24	1.19	1.32	1.39	1.37	1.30	1.27	1.16	1.22	1.31
1986	1.18	1.05	1.12	1.29	1.39	1.72	1.66	1.64	1.56	1.46	1.59	1.83	1.46
1987	1.64	1.61	1.77	1.85	1.97	2.05	2.02	2.10	2.06	1.93	1.94	2.12	1.92
1988	3.26	3.25	3.09	3.07	2.99	2.71	2.74	2.87					

NA = Not available.
N.Q.=No quotes. 1/ Prior to June 1977 reported as barley, no. 3 or better. 2/ Reporting point changed from Minneapolis #2 feed to Duluth #2 feed beginning March 1987.

Source: Grain and Feed Market News, Agricultural Marketing Service, USDA.

Table 10--Feed-price ratios for livestock, poultry, and milk, by months, 1971-88

Year	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Average
Hog/corn, U.S. basis 1/:													
1971	16.1	19.5	19.3	18.2	20.9	23.5	21.2	19.9	21.7	22.7	24.1	24.3	21.0
1972	23.0	23.0	22.3	20.8	22.3	25.4	27.9	24.7	21.9	18.7	20.3	21.0	22.6
1973	20.4	18.8	18.6	16.0	15.5	14.2	13.1	12.7	10.7	9.4	11.8	10.7	14.3
1974	10.2	10.8	11.1	11.7	12.4	13.5	14.5	14.7	17.0	17.7	19.8	19.0	14.4
1975	21.2	22.3	21.1	20.1	19.5	19.4	18.2	19.1	18.2	18.0	16.9	16.1	19.2
1976	15.3	14.1	15.4	16.3	16.3	16.8	15.8	15.6	18.1	19.8	23.8	26.3	17.8
1977	25.2	23.9	20.1	21.3	22.0	23.3	21.6	20.1	20.9	20.9	21.0	23.6	22.0
1978	24.2	25.8	23.4	23.0	24.0	24.1	21.8	19.4	18.4	15.9	14.4	14.3	20.7
1979	14.8	14.0	15.2	15.5	14.8	15.4	13.9	11.9	11.8	13.3	15.1	15.8	14.3
1980	15.3	15.8	14.7	13.7	12.8	12.8	11.9	12.0	12.6	15.0	15.7	17.1	14.1
1981	19.1	18.4	17.7	16.3	17.1	19.8	19.8	20.1	21.8	22.4	23.1	26.6	20.2
1982	28.5	28.2	24.6	23.7	23.4	21.9	18.6	15.9	15.1	14.4	13.9	13.9	20.2
1983	13.3	12.8	11.8	14.0	15.4	14.6	14.3	14.3	14.1	14.6	15.8	16.2	14.3
1984	16.0	16.5	18.4	19.0	18.2	18.4	16.3	15.3	15.4	16.9	17.6	17.4	17.1
1985	17.3	20.4	19.5	19.8	19.0	18.4	17.6	17.3	19.2	22.7	29.5	35.9	21.4
1986	40.2	37.9	35.9	33.7	32.1	33.9	32.2	33.4	31.9	34.7	37.3	39.9	35.3
1987	36.4	31.3	25.1	23.4	24.3	25.0	22.7	22.3	23.7	19.5	16.2	17.1	23.9
1988	15.7	15.0	14.4	15.7 3/	16.2								
Beef-steer/corn, Omaha 3/:													
1971	28.3	28.3	29.0	27.6	28.5	29.5	28.6	27.6	28.1	30.8	31.0	29.5	28.9
1972	27.1	27.3	25.1	24.7	27.1	28.1	30.6	29.8	24.9	20.8	20.5	19.5	25.5
1973	19.0	17.9	16.7	15.8	17.4	15.7	15.5	16.7	16.1	14.2	13.7	13.1	16.0
1974	12.0	10.9	10.9	11.1	11.8	12.5	13.1	15.0	17.6	18.2	17.2	15.0	13.8
1975	16.6	17.4	17.7	17.6	16.0	14.9	13.8	16.6	14.8	14.2	13.4	13.8	15.6
1976	14.3	16.1	18.0	17.4	16.1	16.0	15.9	17.5	19.0	19.2	21.5	24.2	17.9
1977	24.2	23.6	20.7	21.1	21.6	22.2	22.7	23.3	24.5	23.8	25.6	26.5	23.3
1978	27.8	26.8	26.4	26.6	28.5	30.5	32.7	33.2	30.8	26.5	25.0	25.6	28.4
1979	28.6	27.8	28.9	29.1	29.4	29.0	30.0	27.2	26.6	26.6	25.1	24.3	27.7
1980	23.1	21.3	19.5	19.5	19.1	19.3	19.4	20.0	20.6	21.4	21.5	23.8	20.7
1981	26.0	25.2	25.0	25.0	24.6	25.9	26.5	26.5	27.2	26.5	26.1	29.2	26.1
1982	27.5	27.7	25.1	25.2	24.5	23.4	22.7	21.9	21.8	21.2	19.6	18.1	23.2
1983	17.8	18.4	18.3	19.8	21.6	22.1	21.1	20.4	19.7	19.1	20.4	20.7	20.0
1984	21.3	22.4	24.6	25.6	24.8	24.1	22.2	21.5	21.5	21.0	20.4	21.7	22.6
1985	21.8	25.7	27.8	26.7	25.6	24.4	24.0	22.9	23.0	22.3	28.9	36.7	25.8
1986	42.1	42.7	39.7	38.8	40.8	43.9	41.9	42.2	40.2	38.9	41.4	43.9	41.4
1987	42.1	41.4	38.4	36.7	36.4	37.4	38.2	39.4	38.6	29.5	24.4	26.1	35.7
1988	26.4	26.4	28.4	27.9	28.1								
Milk/feed, U.S. basis 4/:													
1971	1.76	1.84	1.88	1.85	1.81	1.81	1.78	1.72	1.69	1.66	1.68	1.72	1.77
1972	1.75	1.77	1.75	1.64	1.58	1.58	1.52	1.51	1.40	1.26	1.34	1.27	1.53
1973	1.51	1.57	1.62	1.57	1.51	1.51	1.49	1.50	1.45	1.37	1.30	1.16	1.46
1974	1.22	1.21	1.23	1.20	1.30	1.30	1.33	1.31	1.30	1.30	1.34	1.36	1.28
1975	1.48	1.56	1.66	1.70	1.49	1.44	1.43	1.39	1.35	1.28	1.30	1.34	1.45
1976	1.34	1.37	1.38	1.34	1.31	1.26	1.28	1.28	1.23	1.26	1.35	1.46	1.32
1977	1.56	1.62	1.58	1.51	1.50	1.52	1.51	1.47	1.49	1.43	1.45	1.54	1.52
1978	1.59	1.64	1.62	1.63	1.62	1.59	1.58	1.56	1.53	1.51	1.43	1.51	1.57
1979	1.54	1.55	1.59	1.54	1.54	1.56	1.56	1.55	1.53	1.50	1.48	1.42	1.53
1980	1.40	1.43	1.40	1.39	1.39	1.39	1.41	1.39	1.35	1.36	1.40	1.43	1.40
1981	1.48	1.53	1.56	1.54	1.55	1.53	1.53	1.51	1.46	1.47	1.47	1.50	1.51
1982	1.57	1.61	1.62	1.60	1.59	1.56	1.55	1.49	1.45	1.43	1.45	1.41	1.53
1983	1.36	1.39	1.36	1.34	1.33	1.33	1.34	1.32	1.32	1.32	1.35	1.40	1.35
1984	1.48	1.56	1.62	1.59	1.57	1.57	1.55	1.51	1.47	1.45	1.44	1.47	1.52
1985	1.51	1.56	1.55	1.53	1.52	1.50	1.48	1.48	1.46	1.45	1.51	1.55	1.51
1986	1.61	1.75	1.77	1.77	1.74	1.69	1.63	1.62	1.58	1.55	1.56	1.60	1.66
1987	1.65	1.65	1.65	1.63	1.52	1.48	1.43	1.40	1.37	1.36	1.15	1.17	1.45
1988	1.25	1.32	1.36	1.37 3/	1.37								

See footnotes at end of table.

Continued--

Table 10--Feed-price ratios for livestock, poultry, and milk, by months, 1971-88--Continued

Year	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Average
Egg/feed, U.S. basis 5/:													
1971	7.1	6.9	7.2	8.2	7.1	7.0	7.6	6.5	6.4	6.4	7.0	6.9	7.0
1972	7.7	6.9	8.0	8.7	9.0	7.3	7.7	7.9	6.9	6.4	7.1	8.3	7.7
1973	8.6	8.2	8.6	8.5	8.8	8.4	7.5	7.0	6.2	5.8	6.2	5.7	7.5
1974	6.7	6.5	6.6	7.2	7.2	7.2	7.6	6.5	6.5	6.3	6.4	6.8	6.8
1975	7.5	7.1	8.1	9.0	8.6	8.2	7.4	7.3	7.5	6.8	6.8	7.6	7.7
1976	7.7	7.8	8.7	9.1	8.5	8.1	7.3	6.8	5.9	5.8	6.7	7.2	7.5
1977	7.6	7.1	7.3	7.4	6.7	7.5	7.4	6.7	6.3	5.6	6.4	7.0	6.9
1978	7.3	7.0	7.5	8.0	7.8	7.7	8.0	7.4	6.9	6.7	6.1	6.1	7.2
1979	6.4	6.1	6.8	7.3	6.6	6.0	6.4	6.0	5.4	5.6	5.7	6.0	6.2
1980	6.2	5.7	6.0	6.6	5.9	5.7	5.6	5.9	5.2	5.2	5.5	5.8	5.8
1981	6.4	6.5	7.2	6.7	6.6	6.8	7.1	6.6	5.6	5.3	5.7	5.4	6.3
1982	6.0	6.3	6.3	6.0	5.7	5.8	6.1	5.8	6.0	5.8	5.7	6.1	6.0
1983	6.0	6.2	6.9	7.7	8.8	8.5	7.4	8.6	6.5	5.8	5.8	5.8	7.0
1984	5.9	5.7	6.5	6.3	5.4	5.6	6.3	5.7	5.5	5.9	5.8	6.5	5.9
1985	7.1	7.3	7.5	7.4	7.2	6.9	7.6	6.4	6.4	5.7	6.9	7.3	7.0
1986	7.3	7.0	8.0	7.9	7.2	7.1	6.6	6.7	6.7	6.1	5.8	5.7	6.8
1987	6.7	6.1	6.6	5.8	5.6	5.3	5.8	5.2	4.9	5.2	4.9	4.9	5.5
1988	5.4	5.3	5.4	5.4	5.9								
Broiler/feed, U.S. basis 6/:													
1971	2.9	2.7	2.7	2.5	2.8	3.1	3.1	2.7	2.8	3.0	3.3	3.0	2.9
1972	3.2	2.9	2.7	2.6	2.9	3.1	3.5	3.9	3.3	2.9	3.4	4.0	3.2
1973	3.5	2.9	2.5	2.3	2.5	2.8	2.7	2.7	2.7	2.5	2.6	2.3	2.7
1974	2.6	2.5	2.6	2.4	2.7	2.9	2.9	2.8	3.1	3.4	3.7	2.6	2.9
1975	3.6	3.5	3.4	3.0	3.1	3.2	3.1	3.0	3.1	2.8	2.8	2.7	3.1
1976	2.5	2.4	2.3	2.3	2.5	2.7	2.7	2.6	2.6	2.7	3.0	2.9	2.6
1977	3.1	3.0	2.7	2.6	2.8	3.0	3.0	3.3	3.3	3.5	3.7	3.1	3.1
1978	3.1	2.9	2.8	2.9	3.1	3.3	3.1	3.0	3.2	2.9	2.5	2.3	2.9
1979	2.4	2.2	2.6	2.7	2.8	2.6	2.5	2.3	2.6	2.6	3.3	3.0	2.6
1980	2.9	2.8	2.5	2.5	2.6	2.6	2.6	2.3	2.4	2.6	2.6	2.5	2.6
1981	2.4	2.4	2.4	2.3	2.6	2.6	2.6	2.5	2.6	2.7	2.6	2.5	2.5
1982	2.6	2.5	2.5	2.5	2.6	2.7	2.4	2.3	2.4	2.6	2.8	2.8	2.6
1983	2.7	2.5	2.8	2.9	3.1	3.1	3.1	2.7	2.7	2.7	3.0	2.7	2.8
1984	2.8	2.6	2.8	2.7	2.9	2.9	2.8	2.8	3.1	3.2	3.1	3.1	2.9
1985	3.2	3.1	3.5	3.2	3.2	3.1	3.1	3.1	3.4	3.7	4.5	4.6	3.4
1986	3.8	4.4	3.9	3.5	3.6	3.5	3.3	3.2	3.3	3.0	2.9	3.3	3.5
1987	2.9	2.6	2.7	2.5	2.8	2.6	2.8	3.1	3.7	4.1	3.4	3.4	3.1
1988	3.2	2.9	2.7	2.8	2.9								
Turkey/feed, U.S. basis 7/:													
1971	4.7	4.7	4.8	5.1	4.9	4.8	4.7	4.6	4.5	4.5	4.4	4.4	4.7
1972	4.3	4.3	4.5	4.4	4.0	3.7	4.1	4.8	4.2	3.8	3.9	4.3	4.2
1973	4.9	5.0	5.3	4.8	4.0	3.8	3.8	3.4	3.2	3.1	2.9	2.9	3.9
1974	3.0	3.0	3.3	3.6	3.6	3.7	3.8	3.6	3.8	3.9	4.2	4.2	3.6
1975	4.2	4.3	4.5	4.4	4.0	3.9	4.0	3.9	3.9	3.5	3.3	3.4	3.9
1976	3.4	3.5	3.5	3.7	3.5	3.4	3.6	3.4	3.4	3.5	3.5	3.8	3.5
1977	4.0	4.3	4.5	4.5	4.3	4.2	4.3	4.2	4.3	4.4	4.5	4.8	4.4
1978	4.9	5.0	5.1	5.4	5.0	4.6	4.3	4.3	4.2	3.9	3.5	3.7	4.5
1979	3.7	3.9	4.5	4.3	3.8	3.6	3.5	3.4	3.1	3.1	3.5	3.5	3.7
1980	3.7	4.0	3.9	3.5	3.1	3.1	3.2	3.0	3.0	3.3	3.3	3.2	3.4
1981	3.1	2.8	3.1	2.9	3.0	3.0	3.0	3.0	3.0	3.2	3.4	3.5	3.1
1982	3.8	3.9	3.9	3.0	2.9	2.9	2.9	2.7	2.9	3.0	2.8	2.8	3.1
1983	3.0	3.0	3.1	3.5	3.6	3.2	3.3	3.3	3.3	3.3	3.6	3.8	3.3
1984	3.9	4.4	5.0	5.5	4.7	3.8	3.7	3.7	3.7	3.8	4.2	4.5	4.2
1985	5.0	5.5	5.5	5.5	3.4	3.4	3.5	3.8	3.5	4.3	4.5	4.6	4.4
1986	4.7	4.9	4.8	4.0	3.3	3.4	3.6	3.5	3.3	3.3	3.1	2.9	3.7
1987	2.8	2.8	3.1	3.6	2.8	2.6	2.5	2.7	2.8	3.0	2.9	3.1	2.9
1988	3.4	3.6	3.6	2.8	2.7								

1/ Bushels of corn equal in value to 100 pounds of hog, live weight. 2/ Preliminary. 3/ Based on price of choice beef-steers, 900-1100 pounds. 4/ Pounds of 16-percent mixed dairy feed equal in value to 1 pound whole milk. 5/ Pounds of laying feed equal in value to 1 dozen eggs. 6/ Pounds of broiler grower feed equal in value to 1 pound broiler, live weight. 7/ Pounds of turkey grower feed equal in value to 1 pound of turkey, live weight.

Source: Agricultural Prices, Agricultural Statistics Board, USDA.

Table 11--Byproduct feeds: Average wholesale price a ton, bulk, specified markets, by months, 1970 to date

Year	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Average
							$/ton						
Distiller's dried grains, Lawrenceburg, Indiana:													
1970	61.00	64.75	66.75	66.90	68.25	68.75	64.50	61.00	61.00	61.00	64.00	65.00	64.41
1971	66.60	61.00	59.00	58.00	59.00	58.70	58.00	60.10	62.25	64.25	64.00	65.10	61.33
1972	124.50	70.60	73.50	77.50	87.30	98.75	103.60	98.00	95.70	126.50	126.40	141.75	102.00
1973	154.10	119.20	117.50	126.25	129.70	123.90	106.25	94.00	90.50	92.75	98.00	120.00	114.35
1974	123.20	123.80	147.50	136.00	127.50	115.50	102.00	99.20	100.25	102.00	107.60	119.25	116.98
1975	125.50	121.75	110.40	97.60	107.75	114.50	107.60	102.50	101.50	110.20	123.00	126.40	112.39
1976	104.40	127.25	126.00	133.00	141.25	145.00	142.60	141.00	143.50	143.10	130.75	110.70	132.38
1977	113.60	112.25	117.10	123.00	124.60	124.00	123.75	123.00	124.00	125.60	124.50	118.60	121.17
1978	143.70	116.00	122.00	128.50	130.00	130.00	128.00	121.50	120.30	122.90	131.40	139.00	127.78
1979	160.00	153.00	147.50	145.00	143.60	134.70	124.00	121.10	122.60	126.00	132.00	144.50	137.83
1980	150.00	165.75	171.25	175.20	175.25	167.50	153.00	145.10	155.25	164.40	164.50	156.00	161.93
1981	150.00	151.25	153.75	148.00	146.25	147.60	139.40	136.50	142.00	147.00	153.00	145.25	146.67
1982	137.60	136.25	137.00	137.00	138.75	136.75	140.20	144.50	147.00	150.20	150.60	155.60	142.62
1983	167.50	175.00	183.20	189.75	190.00	185.00	173.50	165.50	168.00	165.75	156.60	147.75	172.30
1984	139.00	120.10	96.50	93.00	94.25	96.00	94.00	87.40	83.25	85.00	88.75	95.50	97.73
1985	96.50	99.70	105.25	110.80	115.00	113.75	109.50	112.40	111.90	109.75	102.10	NQ	107.88
1986	131.50	129.00	128.60	124.80	113.25	110.10	105.10	100.75	111.10	116.00	118.25	NQ	117.13
1987	118.00	118.25	122.50	128.40	138.75	139.75	136.00	129.00	126.50	131.80	159.00	NQ	131.63
1988	142.00	144.00	157.60	155.20	154.90								
Brewers' dried grains, Milwaukee:													
1970	57.30	56.90	54.50	55.90	60.90	56.50	49.40	46.50	48.75	49.20	45.50	46.90	52.35
1971	46.90	47.50	48.00	50.50	56.10	51.90	49.50	51.25	51.70	49.40	46.00	50.80	49.96
1972	60.10	67.80	74.90	87.00	95.00	93.25	76.50	66.10	93.30	106.75	82.20	108.75	84.30
1973	98.50	112.60	117.60	122.25	122.40	103.00	81.25	88.90	81.50	63.40	81.60	119.40	99.36
1974	97.25	111.00	120.25	108.80	98.50	71.00	75.40	92.10	72.40	74.25	86.10	92.40	91.62
1975	86.80	99.00	93.25	89.00	104.40	92.60	95.60	84.90	88.20	96.60	100.90	105.90	94.76
1976	120.50	119.00	120.60	130.10	134.50	127.10	114.40	105.00	126.75	121.10	86.75	82.80	115.72
1977	85.00	88.60	98.10	108.25	101.20	89.50	93.00	88.00	82.40	87.00	75.75	74.20	89.25
1978	92.25	104.60	112.00	113.50	113.20	111.75	100.75	81.20	89.00	107.50	115.00	109.50	104.19
1979	116.00	124.80	115.10	116.70	120.80	109.00	96.25	93.00	105.25	103.75	107.00	115.00	110.22
1980	118.60	133.75	145.25	149.00	149.25	121.75	93.80	110.50	114.10	94.20	85.00	95.75	117.58
1981	99.60	109.25	117.50	99.40	103.25	97.50	85.00	95.75	98.50	89.00	88.00	87.40	97.52
1982	91.25	102.90	102.40	108.50	113.10	97.60	95.60	104.25	104.00	102.00	106.00	108.60	103.02
1983	122.25	127.75	128.10	136.00	141.00	136.25	123.50	106.00	98.40	102.40	88.00	80.25	115.82
1984	83.80	77.30	63.40	78.25	86.40	61.25	46.25	47.00	53.10	70.00	60.50	50.60	64.82
1985	70.60	74.50	71.25	93.00	106.25	71.90	58.10	81.50	78.75	67.10	61.25	61.25	74.62
1986	68.70	83.10	101.25	118.00	100.60	61.50	50.50	68.00	81.90	77.00	71.90	78.10	80.04
1987	85.00	91.90	105.60	113.00	118.75	100.60	85.50	89.40	94.40	114.00	144.00	136.50	106.55
1988	139.40	135.60	144.00	150.00	146.00								
Corn gluten feed, 21% protein, Illinois Points:													
1970	50.00	52.50	54.00	57.00	59.00	50.25	50.00	48.50	48.00	48.00	45.00	41.60	50.32
1971	40.00	40.00	44.00	51.00	52.75	47.20	48.50	48.75	46.40	43.50	45.10	48.00	46.27
1972	49.75	54.40	58.80	68.50	79.80	79.25	77.25	66.00	72.00	78.25	79.00	97.00	71.67
1973	92.25	92.50	94.40	105.75	108.20	85.25	79.00	74.60	75.75	72.00	83.00	120.70	90.28
1974	91.00	100.00	103.75	92.80	90.25	80.50	77.00	88.40	80.00	81.60	83.90	91.50	88.39
1975	88.60	90.25	86.50	87.60	92.75	87.00	83.00	82.50	90.00	98.10	106.00	107.90	91.68
1976	114.00	115.10	108.00	117.50	125.25	122.00	110.60	114.80	117.50	108.80	89.00	80.40	110.25
1977	78.00	78.00	89.60	103.25	101.60	91.50	89.00	91.00	89.60	88.00	88.00	89.60	89.76
1978	96.25	107.60	113.50	115.40	118.60	122.00	121.60	120.50	117.90	122.50	131.00	130.00	118.07
1979	129.00	134.00	132.50	135.00	140.00	138.75	120.60	105.00	113.75	113.75	116.00	123.70	125.17
1980	130.00	126.25	131.25	138.00	140.00	120.00	114.50	121.25	122.40	111.00	101.75	107.25	121.97
1981	108.50	110.00	110.00	113.80	117.00	117.00	112.00	112.00	112.00	112.00	114.25	110.40	112.41
1982	115.00	109.50	111.20	120.00	125.00	117.50	112.80	110.00	111.75	114.00	120.00	127.00	116.15
1983	135.00	140.60	136.00	136.25	135.00	118.75	111.25	113.75	106.00	83.75	79.70	78.75	114.57
1984	69.40	76.00	80.10	80.60	79.80	73.90	61.60	59.70	63.25	68.50	74.10	78.00	72.08
1985	81.25	86.60	89.00	91.80	92.50	89.60	97.10	96.00	90.00	87.50	84.30	88.10	89.48
1986	97.80	105.50	109.75	99.20	97.90	98.10	99.60	98.40	96.90	93.80	91.25	92.40	98.38
1987	96.50	98.50	106.00	110.00	118.10	120.60	119.00	118.10	116.90	129.50	135.00	120.00	115.68
1988	119.40	119.40	123.10	125.00	127.10								

See footnotes at end of table.

Continued--

Table 11--Byproduct feeds: Average wholesale price a ton, bulk, specified markets, by months, 1970 to date--Continued

Year	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Average
						$/ton							
Corn gluten meal, 60% protein, Illinois Points:													
1970	146.00	143.00	134.50	130.00	130.50	132.00	132.00	132.00	134.00	134.00	136.00	135.60	134.97
1971	131.00	126.00	121.60	118.75	121.25	125.20	130.50	137.00	142.00	146.50	149.25	150.80	133.32
1972	143.00	133.00	132.80	158.00	191.20	238.50	266.25	257.00	303.60	394.50	316.30	276.00	234.18
1973	221.25	210.70	200.75	234.25	246.80	267.75	267.50	254.00	204.90	180.00	214.50	263.40	230.48
1974	217.75	221.60	217.50	204.00	198.50	181.25	191.50	209.60	211.00	212.00	215.20	222.00	208.49
1975	229.20	237.75	238.25	241.00	248.00	254.00	250.80	208.10	185.50	209.30	257.40	270.20	235.79
1976	294.00	298.00	267.80	246.00	258.00	288.75	297.80	287.50	296.00	294.40	275.90	208.20	276.03
1977	182.00	182.60	215.30	243.75	250.00	250.00	248.75	245.50	220.00	213.75	201.75	216.00	222.45
1978	232.75	249.20	243.75	243.75	252.60	271.90	280.00	270.00	234.00	241.75	304.10	325.00	262.40
1979	316.90	275.00	260.60	263.10	269.00	246.25	222.50	206.00	211.90	220.00	233.00	268.10	249.36
1980	302.00	288.75	296.25	302.00	307.50	292.50	239.00	235.00	256.25	261.00	237.50	249.40	272.26
1981	260.00	245.25	244.40	260.50	275.00	271.25	243.00	225.00	225.00	228.00	237.50	229.50	245.37
1982	221.25	207.50	215.00	246.25	265.00	267.50	251.00	238.75	235.00	213.00	242.50	300.00	241.90
1983	326.25	308.75	283.00	275.00	284.00	258.75	245.00	256.25	271.00	266.25	236.75	218.75	269.15
1984	213.80	211.30	215.60	240.00	232.00	215.60	203.75	191.00	172.50	169.20	174.50	198.10	203.11
1985	211.25	208.70	208.75	219.50	219.40	208.10	198.75	192.90	210.60	216.90	211.50	206.25	209.38
1986	208.00	222.50	230.60	241.50	232.20	206.25	208.50	213.10	226.40	267.80	268.75	240.60	230.52
1987	259.50	278.75	305.60	313.50	309.40	283.75	287.00	275.60	278.75	355.50	380.00	310.00	303.11
1988	309.40	313.75	293.00	277.50	281.00								
Meat and bone meal, Kansas City:													
1970	96.00	96.60	101.10	101.50	102.90	93.75	99.30	92.75	92.10	95.60	94.75	98.00	97.03
1971	98.25	96.40	94.00	95.00	100.00	104.40	118.90	121.25	117.50	118.75	127.40	131.30	110.26
1972	126.90	134.20	154.40	184.40	224.00	266.25	240.00	192.50	315.00	398.10	343.50	355.00	244.52
1973	201.90	174.00	220.00	328.75	306.00	221.25	160.00	139.00	143.75	138.10	175.00	196.25	200.33
1974	135.00	183.00	153.10	155.40	152.50	137.50	137.50	151.00	149.40	156.90	162.00	168.10	153.45
1975	154.00	150.50	141.90	150.50	158.10	158.10	159.00	163.10	205.00	253.50	232.50	184.00	175.85
1976	203.75	183.75	210.50	240.00	261.25	237.50	259.00	288.75	270.00	222.00	168.75	169.50	226.23
1977	193.75	183.75	210.00	186.40	189.00	186.25	241.90	210.60	204.50	210.00	204.40	202.50	201.92
1978	218.75	233.50	228.60	230.00	229.50	266.90	264.40	253.10	239.50	265.00	254.50	219.40	241.93
1979	238.10	236.50	233.75	231.90	229.50	248.20	253.75	208.50	183.75	194.40	255.50	248.60	230.20
1980	275.50	288.60	300.60	264.50	258.75	237.50	231.50	245.00	246.25	235.00	247.50	240.10	255.90
1981	234.50	230.25	221.90	211.00	206.25	209.40	211.00	220.60	208.75	208.00	204.40	192.00	213.17
1982	186.25	183.75	209.30	210.60	225.00	232.50	231.00	246.90	213.10	199.50	198.75	244.50	215.10
1983	237.50	216.25	238.50	234.40	236.00	209.40	227.50	218.75	214.00	196.90	176.50	169.40	214.59
1984	162.80	178.00	177.50	175.60	175.70	173.10	146.25	126.40	108.10	120.00	130.40	140.60	151.20
1985	151.25	164.75	170.60	173.50	168.75	152.80	160.00	150.00	170.90	175.00	173.20	178.40	165.76
1986	187.10	183.10	189.40	198.50	175.25	173.10	178.60	191.90	216.90	222.00	222.40	209.75	195.67
1987	212.50	221.00	233.20	242.50	238.75	228.75	237.00	244.00	256.00	356.90	270.00	264.00	250.38
1988	278.75	280.60	271.10	258.80	275.40								
Fish meal, 65% protein; Domestic, East Coast:													
1970	174.00	188.10	190.00	187.00	182.00	178.75	179.00	174.50	170.00	154.30	152.75	162.00	174.37
1971	160.00	160.00	160.00	162.00	164.00	165.00	165.25	160.25	180.20	176.75	179.50	191.80	168.73
1972	199.00	216.00	231.25	280.00	375.00	411.90	420.00	407.50	465.00	570.00	536.00	490.60	383.52
1973	462.50	420.00	411.25	587.50	538.00	446.25	405.00	337.00	276.25	258.75	252.00	312.50	392.25
1974	271.25	299.00	298.75	275.00	256.25	228.75	220.00	240.00	225.00	219.00	237.50	251.25	251.81
1975	257.00	268.75	270.00	267.00	271.90	272.00	279.00	270.00	282.50	352.50	383.75	332.50	292.24
1976	366.25	363.10	368.50	402.50	405.00	423.10	437.50	481.25	489.50	421.25	313.30	319.40	399.22
1977	335.00	342.50	353.00	363.75	365.00	362.50	377.50	395.00	373.00	356.25	316.90	333.50	356.16
1978	353.75	370.00	388.75	391.25	388.00	383.75	395.00	406.25	390.00	375.00	382.00	355.00	381.56
1979	353.75	366.00	370.00	381.25	391.50	403.75	398.75	375.00	355.00	342.50	365.00	380.00	373.54
1980	427.00	460.00	502.50	490.00	468.75	421.25	405.00	418.75	413.75	404.00	391.25	365.00	430.00
1981	378.00	383.75	370.00	354.00	370.00	377.50	377.00	360.00	360.00	335.00	306.25	315.50	357.25
1982	311.25	324.25	346.00	370.00	375.00	370.00	363.00	362.50	357.50	336.50	325.00	397.00	353.17
1983	415.00	425.00	423.50	407.50	392.60	373.75	383.75	381.25	360.00	354.00	329.00	298.75	378.68
1984	291.90	295.00	309.50	308.25	308.90	290.90	280.60	280.00	231.75	208.90	205.80	207.25	268.23
1985	240.50	284.50	259.00	297.50	291.00	287.50	320.00	290.00	286.90	272.50	278.00	303.10	284.21
1986	320.40	318.00	317.50	315.80	313.30	315.75	NQ	NQ	335.80	359.50	353.75	363.10	331.29
1987	364.30	372.50	401.25	449.50	448.75	420.80	NQ	426.25	456.25	553.50	571.00	527.50	453.78
1988	530.00	523.10	505.00	471.90	463.50								

See footnotes at end of table.

Continued--

Table 11--Byproduct feeds: Average wholesale price a ton, bulk, specified markets, by months, 1970 to date--Continued

Year	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Average
							$/ton						
Hominy feed, Illinois Points:													
1970	49.80	45.90	47.20	53.30	52.40	43.40	46.70	47.90	45.10	47.00	45.50	40.30	47.04
1971	33.50	36.25	38.60	44.10	40.60	35.90	38.75	41.25	34.30	33.75	37.50	42.10	38.05
1972	47.60	44.80	49.40	54.50	54.50	47.90	47.90	43.25	63.20	77.60	73.60	98.75	58.58
1973	76.00	81.50	90.75	95.00	92.20	90.90	88.40	87.20	79.90	79.10	101.00	124.75	90.56
1974	99.10	116.00	115.00	103.00	93.00	74.75	74.75	87.50	78.20	79.75	80.00	91.60	91.05
1975	93.00	82.90	81.25	81.80	83.00	81.00	77.30	75.40	85.90	94.20	99.90	90.10	85.48
1976	92.40	85.40	76.60	83.90	83.90	82.25	73.90	79.75	78.50	76.70	62.90	50.70	77.24
1977	57.00	61.50	67.40	75.00	67.70	70.50	72.25	72.60	78.10	81.25	67.50	63.70	69.54
1978	65.10	68.50	78.10	69.50	69.20	76.75	71.90	73.00	83.60	91.00	94.20	93.75	77.88
1979	94.70	85.70	82.50	91.20	84.80	75.00	77.50	79.00	82.00	81.25	90.00	106.00	85.80
1980	116.20	105.75	118.50	121.80	118.25	103.50	99.80	111.25	108.25	95.90	99.75	94.00	107.75
1981	88.10	88.25	83.75	79.60	81.75	69.00	65.20	79.50	85.00	85.80	81.75	70.90	79.88
1982	73.90	73.00	82.00	79.60	77.90	80.75	88.60	107.00	109.50	109.00	112.75	116.80	92.57
1983	121.50	118.75	122.20	117.50	114.40	105.50	108.25	109.75	102.80	102.75	96.90	97.50	109.82
1984	101.80	88.70	76.90	78.75	81.00	73.90	70.25	78.70	82.75	78.30	83.10	80.25	81.20
1985	76.75	76.50	77.25	85.80	85.00	84.90	84.50	86.40	85.25	82.50	72.40	74.25	80.96
1986	75.00	61.60	65.75	64.40	60.50	58.75	51.50	52.75	67.00	69.40	73.60	70.75	64.25
1987	64.70	65.60	71.00	80.20	80.40	77.75	79.40	80.10	82.10	93.10	103.60	101.00	81.58
1988	101.25	98.00	89.90	94.40	97.60								
Dehydrated alfalfa meal, 17% protein (reround), Kansas City:													
1970	46.00	46.20	48.40	48.90	48.90	49.90	50.70	52.50	49.25	44.60	45.75	46.00	48.09
1971	46.00	46.00	46.80	48.75	49.75	49.70	49.70	49.40	49.70	45.80	47.10	48.20	48.08
1972	50.00	53.00	62.60	75.70	92.80	106.70	94.80	70.80	71.40	72.70	74.50	83.20	75.68
1973	77.60	101.50	103.60	104.70	104.80	102.60	94.20	82.00	75.40	68.20	76.70	93.75	90.42
1974	89.75	92.00	89.25	87.00	84.25	77.10	74.40	75.90	77.00	74.70	76.60	81.50	81.62
1975	82.60	87.30	92.40	98.70	110.20	108.20	111.40	108.40	91.40	94.20	99.90	103.00	98.98
1976	115.20	115.50	111.10	112.10	112.80	111.30	104.25	95.30	91.40	85.00	74.90	66.40	99.60
1977	64.30	67.90	70.90	74.40	73.20	72.80	80.90	82.60	77.50	76.20	76.90	77.20	74.57
1978	81.20	92.90	98.90	99.20	100.60	103.50	105.10	104.60	102.30	99.50	102.80	98.80	99.12
1979	100.80	111.00	112.10	112.60	112.60	112.80	110.60	104.90	100.10	96.80	104.00	118.10	108.03
1980	120.10	122.70	132.00	136.20	135.50	131.90	125.60	126.10	118.00	112.40	112.60	108.60	123.48
1981	106.00	109.40	110.20	110.10	109.40	105.40	99.90	99.80	105.80	105.90	103.80	102.50	105.68
1982	105.40	109.60	115.50	118.80	119.60	121.10	121.10	131.10	136.10	115.70	114.80	120.10	119.08
1983	123.60	128.90	131.90	134.10	139.70	143.60	141.10	142.40	143.30	117.40	110.10	109.40	130.46
1984	111.80	114.50	117.20	115.40	110.50	104.80	95.50	94.30	91.70	87.25	86.90	85.80	101.30
1985	86.10	88.80	92.60	94.90	97.70	97.60	99.10	104.10	99.80	92.50	79.70	81.40	92.86
1986	84.20	86.60	90.10	94.50	96.40	95.60	94.60	96.60	96.40	90.00	90.60	91.60	92.27
1987	93.80	100.10	101.60	103.50	105.25	106.75	106.20	105.00	103.00	113.00	126.25	127.60	107.67
1988	130.50	133.50	136.40	138.80	132.00								
Molasses beet pulp, Los Angeles:													
1970	48.00	48.30	48.30	53.90	57.70	57.70	57.70	57.70	57.00	55.20	55.40	55.40	54.36
1971	54.90	53.40	53.80	55.50	55.60	55.60	55.60	55.60	56.20	58.60	58.60	58.75	56.01
1972	59.25	59.60	61.60	66.60	73.80	73.80	73.80	73.20	71.30	72.60	71.30	71.30	69.01
1973	90.60	101.50	108.00	108.00	110.50	112.60	111.30	101.00	92.75	90.40	97.75	111.40	102.98
1974	128.25	130.00	131.00	126.60	117.50	108.75	96.00	85.40	87.00	84.75	90.90	104.90	107.59
1975	117.60	116.00	111.25	109.00	108.00	108.00	106.60	101.00	101.00	101.40	103.25	104.00	107.26
1976	103.50	101.75	101.75	101.40	99.70	101.75	105.00	100.90	99.00	96.70	94.90	91.60	99.83
1977	85.75	83.25	84.60	88.75	93.40	96.80	102.50	101.10	101.80	100.80	103.40	101.50	95.30
1978	102.75	109.10	113.75	115.00	116.80	118.00	118.00	113.00	110.00	111.75	118.50	120.50	113.93
1979	122.60	130.60	139.00	141.25	141.25	129.40	123.75	118.25	110.90	110.90	115.00	121.50	125.37
1980	127.50	127.40	134.60	142.00	143.90	152.50	NQ	137.60	130.75	123.00	122.60	119.25	132.83
1981	116.00	108.75	108.75	112.25	116.70	121.40	123.50	111.50	113.50	114.70	115.10	116.50	114.89
1982	114.60	119.00	119.00	122.90	121.40	120.00	123.00	124.50	125.00	123.00	119.10	120.20	120.98
1983	130.00	130.60	130.00	NQ	NQ	NQ	NQ	123.00	121.80	121.00	124.80	124.00	125.65
1984	118.00	120.30	123.50	124.60	129.50	130.00	125.10	120.10	112.60	105.50	105.90	106.00	118.42
1985	104.00	107.00	111.50	117.40	119.00	121.00	118.50	111.40	105.25	99.50	96.50	96.00	108.92
1986	91.40	90.00	91.90	95.80	103.00	105.00	101.00	94.60	88.75	88.50	88.50	89.50	94.00
1987	89.50	90.25	92.25	95.50	99.50	NQ	NQ	NQ	100.00	103.00	115.00	122.50	100.83
1988	127.50	129.25	129.00	129.00	127.00								

NQ=No quotes.

Source: Grain and Feed Market News, AMS, USDA.

Table 12--Corn, sorghum, barley, and oats exports, 1975/76 to date 1/

Year and month	Corn		Sorghum	Year and month	Barley		Oats	
	Grain only	Total			Grain only	Total	Grain only	Total
	Bushels				Bushels			
1975/76				1975/76				
Sept.	75,053,640	76,955,227	27,989,402	June	836,264	975,155	57,472	61,893
Oct.	132,616,891	133,765,971	15,087,217	July	1,950,140	2,047,409	206,451	405,851
Nov.	165,253,446	166,208,159	23,107,812	Aug.	940,228	1,013,720	156,478	311,810
1st Qtr.	372,923,977	376,929,357	66,184,431	1st Qtr.	3,726,632	4,036,284	420,401	779,554
Dec.	152,819,984	153,718,172	25,175,934	Sept.	368,773	415,306	1,707,307	1,857,893
Jan.	137,508,424	138,396,658	28,001,886	Oct.	3,232,356	3,290,346	2,690,989	2,782,316
Feb.	136,507,142	137,397,080	19,016,748	Nov.	1,374,011	1,430,450	2,673,189	2,828,325
2nd Qtr.	426,835,550	429,511,910	72,194,568	2nd Qtr.	4,975,140	5,136,102	7,071,485	7,468,534
Mar.	128,992,136	130,102,227	21,010,849	Dec.	4,898,838	4,971,035	2,451,702	2,485,337
Apr.	164,220,528	165,366,095	16,787,280	Jan.	1,015,730	1,099,219	92,717	227,968
May	153,177,354	154,037,515	3,622,364	Feb.	137,889	268,500	164,429	332,902
3rd Qtr.	446,390,018	449,505,837	41,420,493	3rd Qtr.	6,052,457	6,338,754	2,708,848	3,046,207
June	159,436,466	160,639,012	7,894,661	Mar.	2,081,973	2,204,333	96,554	102,936
July	138,125,613	139,325,780	22,413,313	Apr.	1,330,542	1,404,961	196,085	505,098
Aug.	120,781,441	121,796,742	22,054,372	May	4,634,179	4,654,198	1,783,345	1,807,957
4th Qtr.	418,343,520	421,761,534	52,362,346	4th Qtr.	8,046,694	8,263,492	2,075,984	2,415,991
Total	1,664,493,065	1,677,708,638	232,161,838	Total	22,800,923	23,774,632	12,276,718	13,710,286
1976/77				1976/77				
Sept.	109,747,811	110,623,219	24,870,524	June	1,303,146	1,462,324	365,100	399,404
Oct.	178,936,003	179,779,470	16,635,698	July	3,287,074	3,355,973	61,659	253,988
Nov.	180,098,843	181,073,558	20,549,541	Aug.	3,478,167	3,498,931	2,244,591	2,297,468
1st Qtr.	468,782,657	471,476,247	62,055,763	1st Qtr.	8,068,387	8,317,228	2,671,350	2,950,860
Dec.	136,223,158	137,114,535	24,648,500	Sept.	6,615,438	6,722,402	1,920,409	1,928,142
Jan.	126,956,735	127,714,378	25,601,274	Oct.	13,048,078	13,356,005	570,607	867,353
Feb.	119,422,523	120,421,394	30,474,848	Nov.	7,064,569	7,271,589	2,149,816	2,187,001
2nd Qtr.	382,602,416	385,250,307	80,724,622	2nd Qtr.	26,728,085	27,349,996	4,640,832	4,982,496
Mar.	150,674,935	151,409,204	27,022,891	Dec.	7,109,317	7,222,045	603,985	630,520
Apr.	141,387,428	142,381,424	20,838,684	Jan.	3,290,070	3,380,086	84,385	146,665
May	138,834,555	139,761,801	13,598,209	Feb.	8,348,213	8,453,835	29,925	167,523
3rd Qtr.	430,896,918	433,552,429	61,459,784	3rd Qtr.	18,747,600	19,055,966	718,295	944,708
June	125,506,250	126,329,574	10,599,319	Mar.	975,528	1,069,154	57,888	217,299
July	116,130,094	117,169,062	20,078,292	Apr.	1,620,641	1,798,769	26,399	191,167
Aug.	121,200,994	122,269,617	18,996,553	May	8,647,500	8,739,038	179,887	351,199
4th Qtr.	362,837,338	366,268,253	49,674,164	4th Qtr.	11,243,669	11,606,961	264,174	759,665
Total	1,645,119,329	1,656,547,236	253,914,333	Total	64,787,741	66,330,151	8,294,651	9,637,729
1977/78				1977/78				
Sept.	137,146,892	138,242,808	17,077,461	June	7,678,469	7,749,102	485,973	621,814
Oct.	118,932,956	120,088,403	8,628,406	July	11,291,749	11,439,168	412,342	566,723
Nov.	143,025,556	143,918,611	17,228,249	Aug.	6,149,089	6,260,217	1,064,326	1,109,150
1st Qtr.	399,105,404	402,249,822	42,934,116	1st Qtr.	25,119,307	25,448,487	1,962,641	2,297,687
Dec.	153,111,226	154,319,205	30,106,414	Sept.	9,278,826	9,462,496	48,597	359,154
Jan.	126,914,873	127,837,959	21,237,901	Oct.	8,026,753	8,071,324	1,155,584	1,289,871
Feb.	127,836,745	128,666,686	22,910,641	Nov.	2,186,923	2,354,670	2,896,689	3,064,137
2nd Qtr.	407,862,844	410,823,850	74,254,956	2nd Qtr.	19,492,502	19,888,490	4,100,870	4,713,162
Mar.	156,643,619	158,036,734	23,826,344	Dec.	3,856,164	4,003,955	2,369,271	2,428,974
Apr.	160,804,806	161,848,500	17,768,956	Jan.	1,413,634	1,597,572	217,675	406,388
May	206,846,481	208,302,073	18,074,476	Feb.	271,263	466,385	394,969	682,456
3rd Qtr.	524,294,906	528,187,307	59,669,776	3rd Qtr.	5,541,061	6,067,912	2,981,915	3,517,818
June	214,018,311	214,770,184	10,145,984	Mar.	145,741	258,834	28,124	445,153
July	171,102,334	172,090,084	19,738,833	Apr.	2,017,960	2,269,261	23,525	261,335
Aug.	180,012,802	181,086,842	16,098,547	May	3,180,917	3,272,925	905,899	1,036,135
4th Qtr.	565,133,447	567,947,110	45,983,364	4th Qtr.	5,344,618	5,801,020	957,548	1,742,623
Total	1,896,396,601	1,909,208,089	222,842,212	Total	55,497,488	57,205,909	10,002,974	12,271,290

See footnotes at end of table.

Continued--

Table 12--Corn, sorghum, barley, and oats exports, 1975/76 to date 1/--Continued

Year and month	Corn		Sorghum	Year and month	Barley		Oats	
	Grain only	Total			Grain only	Total	Grain only	Total
	Bushels				Bushels			
1978/79				1978/79				
Sept.	176,033,904	176,861,083	7,735,700	June	4,205,002	4,353,093	435,464	588,122
Oct.	139,263,490	139,981,749	8,615,589	July	5,066,677	5,156,021	1,303,880	1,668,021
Nov.	153,542,028	154,313,955	18,954,600	Aug.	4,929,079	5,006,603	5,293,313	5,369,592
1st Qtr.	468,839,422	471,156,787	35,305,889	1st Qtr.	14,200,758	14,515,717	7,032,657	7,625,735
Dec.	158,883,560	159,709,773	18,988,714	Sept.	4,242,932	4,291,050	48,251	250,893
Jan.	129,906,845	130,856,541	19,285,385	Oct.	3,080,214	3,167,923	1,343,835	1,576,218
Feb.	124,518,081	125,094,088	26,989,459	Nov.	978,381	1,019,054	285,557	519,770
2nd Qtr.	413,308,486	415,660,402	65,263,558	2nd Qtr.	8,301,527	8,478,027	1,677,643	2,346,881
Mar.	169,263,126	170,303,627	22,069,207	Dec.	266,814	471,044	1,227,047	1,336,346
Apr.	187,095,271	188,081,747	13,038,349	Jan.	574,365	682,389	41,947	283,427
May	198,288,881	199,135,575	14,922,212	Feb.	46,265	107,278	28,584	138,700
3rd Qtr.	554,647,278	557,520,949	50,029,768	3rd Qtr.	887,444	1,260,711	1,297,578	1,758,473
June	229,474,993	230,777,184	9,452,058	Mar.	3,735	41,817	54,088	288,819
July	221,669,115	222,671,382	13,011,285	Apr.	220,154	309,868	81,658	237,250
Aug.	225,178,576	225,884,821	17,029,193	May	1,035,595	1,091,820	195,887	418,606
4th Qtr.	676,322,684	679,333,387	39,492,536	4th Qtr.	1,259,484	1,443,505	331,633	944,675
Total	2,113,117,870	2,123,671,525	190,091,751	Total	24,649,213	25,697,960	10,339,511	12,675,764
1979/80				1979/80				
Sept.	185,070,433	186,246,851	24,223,910	June	2,212,317	2,282,851	120,868	247,616
Oct.	214,345,983	215,526,560	21,583,642	July	2,446,725	2,527,595	42,528	140,915
Nov.	221,857,150	223,007,799	26,229,212	Aug.	2,719,552	2,811,124	105,109	254,874
1st Qtr.	621,273,566	624,781,210	72,036,764	1st Qtr.	7,378,594	7,621,570	268,505	643,405
Dec.	223,411,029	224,356,785	26,386,501	Sept.	2,221,823	2,276,736	144,474	211,556
Jan.	189,912,018	190,929,805	37,438,737	Oct.	9,284,368	9,514,648	95,188	164,665
Feb.	184,412,948	185,516,630	39,082,513	Nov.	8,143,400	8,336,890	870,027	984,369
2nd Qtr.	597,735,995	600,803,220	102,907,751	2nd Qtr.	19,649,591	20,128,274	1,109,689	1,360,590
Mar.	204,333,868	205,545,642	32,000,475	Dec.	4,218,627	4,500,253	645,337	726,279
Apr.	213,500,454	214,521,960	35,394,225	Jan.	3,042,486	3,173,696	98,074	275,844
May	169,938,362	171,104,012	24,939,765	Feb.	3,641,315	3,911,450	18,760	97,572
3rd Qtr.	587,772,684	591,171,614	92,334,465	3rd Qtr.	10,902,428	11,585,399	762,171	1,099,695
June	191,853,582	193,158,972	24,957,177	Mar.	3,843,733	4,052,579	60,276	89,764
July	196,938,173	198,356,492	22,312,730	Apr.	6,525,141	6,692,569	229,439	418,534
Aug.	205,942,297	207,054,727	15,122,775	May	4,520,778	4,747,733	327,568	430,851
4th Qtr.	594,734,052	598,570,191	62,392,682	4th Qtr.	14,889,652	15,492,881	617,283	939,149
Total	2,401,516,297	2,415,326,235	329,671,662	Total	52,820,265	54,828,124	2,757,648	4,042,839
1980/81				1980/81				
Sept.	202,462,112	203,528,019	19,533,279	June	5,022,971	5,097,866	580,924	1,006,889
Oct.	240,698,485	242,279,498	22,543,461	July	3,628,339	3,702,871	327,415	785,586
Nov.	244,706,069	245,871,275	25,367,196	Aug.	9,211,534	9,349,242	638,725	1,101,431
1st Qtr.	687,866,666	691,678,792	67,443,936	1st Qtr.	17,862,844	18,149,979	1,547,064	2,893,906
Dec.	238,328,292	239,663,630	18,308,338	Sept.	6,658,108	6,740,218	793,059	953,125
Jan.	207,962,746	209,110,242	28,807,953	Oct.	5,504,702	5,554,355	1,306,243	1,597,563
Feb.	199,682,732	200,654,523	28,934,912	Nov.	6,666,060	6,808,903	46,960	363,072
2nd Qtr.	645,973,770	649,428,395	76,051,203	2nd Qtr.	18,828,870	19,103,476	2,146,262	2,913,760
Mar.	221,866,761	223,109,865	26,318,245	Dec.	8,916,215	9,085,383	785,897	861,436
Apr.	184,884,549	186,633,809	19,487,235	Jan.	6,315,403	6,388,116	189,156	573,991
May	207,201,786	209,094,680	22,218,323	Feb.	11,466,729	11,500,117	1,087,421	1,400,038
3rd Qtr.	613,953,096	618,838,354	68,023,803	3rd Qtr.	26,698,347	26,973,616	2,062,474	2,835,465
June	157,486,785	159,443,572	19,998,909	Mar.	4,666,953	4,776,513	230,384	633,818
July	146,636,959	148,074,369	29,469,237	Apr.	3,516,330	3,542,993	1,560,078	2,260,296
Aug.	139,188,454	140,514,903	32,171,898	May	4,087,044	4,173,387	1,293,251	1,730,912
4th Qtr.	443,312,198	448,032,844	81,640,044	4th Qtr.	12,270,327	12,492,893	3,083,713	4,625,026
Total	2,391,105,730	2,407,978,385	293,158,986	Total	75,660,388	76,719,964	8,839,513	13,268,157

See footnotes at end of table.

Continued--

Table 12--Corn, sorghum, barley, and oats exports, 1975/76 to date 1/--Continued

Year and month	Corn		Sorghum	Year and month	Barley		Oats	
	Grain only	Total			Grain only	Total	Grain only	Total
	Bushels				Bushels			
1981/82				1981/82				
Sept.	149,655,085	150,744,952	30,963,092	June	1,457,555	1,508,625	372,009	549,202
Oct.	194,694,429	195,728,034	28,388,473	July	6,528,945	6,661,102	366,463	1,092,743
Nov.	174,729,965	176,251,502	18,657,408	Aug.	12,243,107	12,365,441	648,960	782,716
1st Qtr.	519,079,479	522,724,488	78,008,973	1st Qtr.	20,229,607	20,535,168	1,387,432	2,424,661
Dec.	172,337,796	173,551,973	30,772,465	Sept.	11,902,257	12,026,473	436,435	793,962
Jan.	150,895,856	151,627,601	29,552,315	Oct.	16,462,060	16,507,711	202,460	505,977
Feb.	146,989,364	147,749,277	19,453,452	Nov.	8,631,927	8,722,744	59,430	402,684
2nd Qtr.	470,223,016	472,928,851	79,778,232	2nd Qtr.	36,996,244	37,256,928	698,325	1,702,623
Mar.	189,001,536	190,066,366	25,286,333	Dec.	7,636,656	7,746,899	72,350	266,238
Apr.	194,887,043	195,755,373	13,509,047	Jan.	8,332,073	8,455,568	114,472	443,737
May	211,950,747	213,198,644	8,259,377	Feb.	8,088,777	8,207,953	122,192	265,405
3rd Qtr.	595,839,326	599,020,383	47,054,757	3rd Qtr.	24,057,506	24,410,420	309,014	975,380
June	179,668,292	180,443,235	11,386,253	Mar.	5,887,140	6,474,477	99,231	450,891
July	119,477,568	120,516,417	20,242,006	Apr.	3,808,701	3,863,179	38,448	553,340
Aug.	112,474,351	113,953,288	23,142,497	May	7,403,111	7,517,119	154,417	446,421
4th Qtr.	411,620,211	414,912,940	54,770,756	4th Qtr.	17,098,952	17,854,775	292,096	1,450,652
Total	1,996,762,032	2,009,586,662	259,612,718	Total	98,382,309	100,057,291	2,686,867	6,553,316
1982/83				1982/83				
Sept.	107,215,457	108,059,024	20,428,581	June	5,928,163	6,296,843	52,361	603,692
Oct.	166,335,228	167,217,946	18,383,056	July	4,165,507	4,862,814	70,751	240,205
Nov.	169,586,560	170,887,184	19,234,195	Aug.	8,196,824	8,579,926	48,700	197,183
1st Qtr.	443,137,245	446,164,154	58,045,832	1st Qtr.	18,290,494	19,739,583	171,812	1,041,080
Dec.	173,558,165	174,573,008	29,354,316	Sept.	5,561,112	5,678,174	197,917	289,602
Jan.	174,707,042	175,440,799	25,050,652	Oct.	1,440,901	1,516,155	71,782	581,391
Feb.	161,304,672	162,010,945	17,975,892	Nov.	2,494,002	2,987,818	158,162	197,106
2nd Qtr.	509,569,879	512,024,752	72,380,860	2nd Qtr.	9,496,015	10,182,147	427,861	1,068,099
Mar.	169,409,637	170,420,490	19,694,606	Dec.	1,833,788	1,940,049	29,127	210,451
Apr.	157,314,623	158,573,125	5,348,135	Jan.	7,454,630	7,580,831	41,047	75,440
May	148,587,837	149,958,142	8,726,291	Feb.	1,410,838	1,492,942	32,518	123,897
3rd Qtr.	475,312,097	478,951,757	33,769,032	3rd Qtr.	10,699,256	11,013,822	102,692	409,788
June	150,589,182	151,822,069	9,889,322	Mar.	3,523,829	3,669,317	26,152	80,122
July	123,534,997	124,569,819	16,494,246	Apr.	29,375	223,988	16,040	207,447
Aug.	119,201,764	120,193,101	19,474,765	May	2,130,966	2,395,182	5,867	206,939
4th Qtr.	393,325,943	396,584,989	45,858,333	4th Qtr.	5,684,170	6,288,487	48,059	494,508
Total	1,821,345,164	1,833,725,652	210,054,057	Total	44,169,935	47,224,039	750,424	3,013,475
1983/84				1983/84				
Sept.	142,605,075	144,282,518	24,843,392	June	1,749,278	1,962,746	20,066	170,314
Oct.	154,746,149	155,588,111	22,517,772	July	1,219,801	1,332,753	85,615	276,124
Nov.	196,023,261	197,175,227	20,090,581	Aug.	5,858,487	5,950,159	16,399	190,354
1st Qtr.	493,374,485	497,045,856	67,451,745	1st Qtr.	8,827,566	9,245,658	122,080	636,792
Dec.	175,217,363	176,176,687	19,536,615	Sept.	14,055,167	14,152,120	66,102	120,532
Jan.	172,472,646	173,394,560	27,006,928	Oct.	8,017,640	8,100,296	348,182	489,411
Feb.	158,202,220	158,971,946	25,013,805	Nov.	9,025,053	9,128,165	84,892	128,597
2nd Qtr.	505,892,229	508,543,193	71,557,348	2nd Qtr.	31,097,860	31,380,581	499,176	738,540
Mar.	176,208,558	177,553,953	25,761,817	Dec.	15,402,481	15,638,039	42,383	128,719
Apr.	174,344,582	175,342,494	14,599,452	Jan.	7,544,651	7,820,115	27,417	88,611
May	162,845,594	164,383,668	14,890,486	Feb.	5,797,474	6,047,572	15,377	47,266
3rd Qtr.	513,398,734	517,280,115	55,251,755	3rd Qtr.	28,744,606	29,505,726	85,177	264,596
June	110,199,008	112,251,470	10,354,830	Mar.	10,841,262	11,217,537	39,239	198,298
July	128,242,982	130,068,232	21,979,636	Apr.	5,570,656	5,968,499	171,313	220,808
Aug.	135,289,472	136,339,843	17,884,104	May	3,735,785	4,106,217	24,589	113,676
4th Qtr.	373,731,462	378,659,545	50,218,570	4th Qtr.	20,147,703	21,292,253	235,141	532,782
Total	1,886,396,910	1,901,528,709	244,479,418	Total	88,817,735	91,424,218	941,574	2,172,710

See footnotes at end of table.

Continued--

Table 12--Corn, sorghum, barley, and oats exports, 1975/76 to date 1/--Continued

Year and month	Corn		Sorghum	Year and month	Barley		Oats	
	Grain only	Total			Grain only	Total	Grain only	Total
	Bushels				Bushels			
1984/85				1984/85				
Sept.	107,064,816	108,016,147	26,778,001	June	4,668,354	4,884,210	16,340	204,719
Oct.	154,055,992	155,233,827	36,290,021	July	1,506,275	2,146,787	51,644	162,650
Nov.	242,124,317	242,966,896	22,711,771	Aug.	4,965,763	5,155,469	28,335	37,065
1st Qtr.	503,245,125	506,216,870	85,779,793	1st Qtr.	11,140,392	12,186,466	96,319	404,434
Dec.	206,686,724	207,683,410	25,549,874	Sept.	17,185,453	17,474,876	58,861	188,704
Jan.	208,081,216	208,846,539	29,096,442	Oct.	8,750,660	8,959,255	78,898	132,116
Feb.	165,648,304	167,345,348	32,640,358	Nov.	9,226,887	9,937,205	25,988	67,587
2nd Qtr.	580,416,244	583,875,297	87,286,614	2nd Qtr.	35,163,000	36,371,336	163,747	388,407
Mar.	170,693,089	171,901,549	26,133,824	Dec.	10,739,791	11,773,706	45,452	66,239
Apr.	167,741,483	169,045,309	19,774,404	Jan.	6,023,494	7,154,739	27,349	56,389
May	136,292,380	137,951,801	17,817,664	Feb.	4,249,537	4,712,199	44,293	107,702
3rd Qtr.	474,726,952	478,898,659	63,725,892	3rd Qtr.	21,012,822	23,640,644	117,094	230,330
June	105,494,909	107,810,557	25,247,583	Mar.	1,173,727	1,258,040	68,000	75,236
July	95,527,431	96,758,258	18,747,724	Apr.	227,362	367,280	35,822	120,640
Aug.	90,839,919	91,826,779	16,117,507	May	2,937,606	3,013,712	13,925	48,363
4th Qtr.	291,862,259	296,395,594	60,112,814	4th Qtr.	4,338,695	4,639,032	117,747	244,239
Total	1,850,250,580	1,865,386,420	296,905,113	Total	71,654,909	76,837,478	494,907	1,267,410
1985/86				1985/86				
Sept.	79,897,274	80,730,953	29,172,725	June	1,487,412	1,649,817	44,678	87,396
Oct.	124,900,086	125,817,956	23,654,139	July	3,731,241	3,860,606	23,529	69,692
Nov.	210,005,197	211,178,800	17,378,277	Aug.	5,179,203	5,303,587	33,906	163,983
1st Qtr.	414,802,557	417,727,709	70,205,141	1st Qtr.	10,397,856	10,814,010	102,113	321,071
Dec.	175,971,674	178,512,062	11,858,105	Sept.	831,326	937,470	52,866	89,470
Jan.	164,709,634	166,061,297	17,264,657	Oct.	2,652,026	2,799,218	120,219	153,203
Feb.	119,524,523	120,682,252	13,994,213	Nov.	3,768,477	3,869,960	111,195	350,174
2nd Qtr.	460,205,831	465,255,611	43,116,975	2nd Qtr.	7,251,829	7,606,648	284,280	592,847
Mar.	97,479,313	98,402,168	6,723,066	Dec.	112,702	237,932	23,556	37,750
Apr.	57,426,414	58,213,068	8,597,402	Jan.	1,119,603	1,546,100	8,934	69,750
May	46,520,450	47,775,127	11,610,994	Feb.	49,160	116,456	43,584	96,515
3rd Qtr.	201,426,177	204,390,363	26,931,462	3rd Qtr.	1,281,465	1,900,488	76,074	204,015
June	55,802,755	56,818,892	10,467,071	Mar.	1,148	192,476	250,397	288,260
July	44,609,875	45,480,958	17,830,311	Apr.	720,309	816,587	49,085	93,425
Aug.	50,484,684	51,552,942	9,436,885	May	57,584	472,599	473,733	693,272
4th Qtr.	105,897,314	153,852,792	37,734,267	4th Qtr.	779,041	1,481,662	773,215	1,074,957
Total	1,227,331,879	1,241,226,475	177,987,845	Total	19,710,191	21,802,808	1,235,682	2,192,890
1986/87				1986/87				
Sept.	80,082,655	81,263,962	14,227,263	June	2,000	276,815	79,108	128,492
Oct.	124,025,138	124,843,757	18,547,828	July	1,164,620	1,597,139	81,504	217,421
Nov.	114,104,314	114,952,811	14,680,456	Aug.	12,319,164	12,514,711	73,364	335,437
1st Qtr.	318,212,107	321,060,530	47,455,547	1st Qtr.	13,485,784	14,388,665	233,976	681,350
Dec.	109,759,488	110,685,062	19,954,747	Sept.	12,772,707	12,912,177	121,288	327,625
Jan.	104,283,400	105,274,114	15,484,239	Oct.	16,480,986	16,559,353	167,403	411,976
Feb.	98,787,906	99,445,787	20,749,712	Nov.	14,292,746	14,363,851	32,293	167,870
2nd Qtr.	312,830,794	315,404,963	56,188,698	2nd Qtr.	43,546,439	43,835,381	320,984	907,471
Mar.	143,717,211	145,375,500	24,415,530	Dec.	14,532,134	14,661,828	17,314	315,049
Apr.	183,288,269	184,280,573	12,956,519	Jan.	1,205,709	1,262,335	30,960	75,145
May	169,091,351	170,576,405	13,788,332	Feb.	16,084,544	16,522,282	30,776	178,452
3rd Qtr.	496,096,831	500,232,478	51,160,381	3rd Qtr.	31,822,387	32,446,445	79,050	568,646
June	120,026,244	120,818,241	12,940,287	Mar.	17,639,725	18,150,611	115,234	277,846
July	133,984,531	134,900,706	22,883,734	Apr.	16,599,968	17,153,570	105,251	191,418
Aug.	111,320,100	112,008,863	7,698,710	May	10,522,937	10,726,481	67,436	168,607
4th Qtr.	365,330,875	367,727,810	43,522,731	4th Qtr.	44,762,630	46,030,662	287,921	637,871
Total	1,492,470,607	1,504,425,781	198,327,357	Total	133,617,240	136,701,153	921,931	2,795,338

See footnotes at end of table.

Continued--

Table 12--Corn, sorghum, barley, and oats exports, 1975/76 to date 1/--Continued

Year and month	Corn		Sorghum	Year and month	Barley		Oats	
	Grain only	Total			Grain only	Total	Grain only	Total
	Bushels				Bushels			
1987/88				1987/88				
Sept.	135,403,937	136,130,948	17,832,858	June	517,681	754,738	104,217	187,886
Oct.	137,693,604	138,785,098	16,734,001	July	7,421,463	7,675,576	50,113	92,430
Nov.	122,468,369	123,086,306	10,296,951	Aug.	8,813,825	9,257,652	18,135	153,171
1st Qtr.	395,565,910	398,002,352	44,863,810	1st Qtr.	16,752,969	17,687,966	172,465	433,487
Dec.	148,189,862	149,286,585	21,462,657	Sept.	10,014,514	10,217,330	24,184	62,343
Jan.	133,442,601	134,301,735	19,428,923	Oct.	16,474,137	17,009,495	62,220	144,789
Feb.	123,706,547	124,687,685	22,498,453	Nov.	17,914,754	18,114,982	38,617	99,130
2nd Qtr.	405,339,010	408,276,004	63,390,033	2nd Qtr.	44,403,405	45,341,807	125,021	306,262
Mar.	164,120,347	165,290,216	24,662,618	Dec.	15,583,102	16,123,445	5,680	36,703
Apr.	166,544,265	167,301,461	30,340,887	Jan.	9,595,582	9,832,999	96,376	147,370
May	180,228,794	181,240,672	22,103,010	Feb.	6,764,525	7,239,965	29,937	148,578
3rd Qtr.	510,893,406	513,832,349	77,106,515	3rd Qtr.	31,943,209	33,196,409	131,993	332,651
June	132,984,257	133,834,129	13,740,797	Mar.	15,349,596	15,756,272	24,173	49,618
July	125,143,728	126,481,200	20,243,604	Apr.	8,796,666	9,029,851	12,420	114,674
Aug.	153,230,968	154,112,459	11,996,893	May	4,470,071	4,979,881	22,950	215,233
4th Qtr.	411,358,953	414,427,788	45,981,294	4th Qtr.	28,616,333	29,766,004	59,543	379,525
Total	1,723,157,278	1,734,538,492	231,341,652	Total	121,715,916	125,992,186	489,022	1,451,925
1988/89				1988/89				
Sept.	154,515,167	155,284,904	27,007,863	June	12,108,210	12,375,146	102,245	296,052
Oct.	174,032,976	175,129,263	19,499,969	July	11,513,586	11,749,890	38,739	100,218
Nov.	149,832,944	151,038,232	18,305,771	Aug.	2,214,904	2,483,769	24,394	175,381
1st Qtr.	478,381,088	481,452,399	64,813,603	1st Qtr.	25,836,700	26,608,806	165,378	571,651
Dec.	172,593,812	173,496,818	27,308,107	Sept.	8,758,198	8,828,256	21,017	106,755
Jan.				Oct.	1,513,507	2,228,300	30,378	63,562
Feb.				Nov.	2,625,600	3,142,665	73,371	139,679
2nd Qtr.				2nd Qtr.	12,897,305	14,199,220	124,766	309,995
Mar.				Dec.	15,121,435	15,434,824	29,605	57,230
Apr.				Jan.				
May				Feb.				
3rd Qtr.				3rd Qtr.				
June				Mar.				
July				Apr.				
Aug.				May				
4th Qtr.				4th Qtr.				
Total				Total				

1/ Total corn exports include grain only (white, yellow, seed, relief), dry process (cornmeal for relief, as grain, grits),
and wet process (corn starch, sugar dextrose, glucose, high fructose). Sorghum includes seed and unmilled. Barley includes grain only (grain for malting purposes, other) and barley malt. Oats include grain and oatmeal (bulk and packaged).

Source: Bureau of the Census, U.S. Department of Commerce.

Table 13--Corn, sorghum, barley, and oats imports, 1975/76 to date 1/

Year and month	Corn		Sorghum	Year and month	Barley		Oats	
	Grain only	Total			Grain only	Total	Grain only	Total
	Bushels				Bushels			
1975/76				1975/76				
Sept.	48,468	49,894	1,177	June	759,873	1,016,094	95,341	104,362
Oct.	172,388	204,758	0	July	898,065	1,262,809	87,448	95,062
Nov.	19,550	69,861	0	Aug.	2,358,988	2,707,006	64,522	66,588
1st Qtr.	240,406	324,513	1,177	1st Qtr.	4,016,926	4,985,909	247,311	266,012
Dec.	267,752	303,437	0	Sept.	1,436,833	1,804,423	6,357	9,663
Jan.	184,083	221,905	0	Oct.	783,803	1,093,718	8,574	30,049
Feb.	144,936	176,862	0	Nov.	781,713	1,169,351	19,070	21,484
2nd Qtr.	596,771	702,204	0	2nd Qtr.	3,002,349	4,067,492	34,001	61,196
Mar.	134,347	145,986	0	Dec.	2,025,728	2,352,469	27,389	42,320
Apr.	48,183	55,922	0	Jan.	835,254	1,087,702	107,560	132,659
May	22,372	27,433	0	Feb.	784,581	969,243	35,929	47,306
3rd Qtr.	204,902	229,341	0	3rd Qtr.	3,645,563	4,409,414	170,878	222,285
June	304,818	315,434	70	Mar.	590,585	690,283	21,257	23,335
July	78,435	87,714	48	Apr.	587,540	659,960	27,889	48,705
Aug.	72,218	76,070	0	May	858,273	964,963	11,753	14,926
4th Qtr.	455,471	479,218	118	4th Qtr.	2,036,398	2,315,206	60,899	86,966
Total	1,497,550	1,735,276	1,295	Total	12,701,236	15,778,021	513,089	636,459
1976/77				1976/77				
Sept.	136,434	138,356	0	June	2,009,994	2,236,414	15,553	34,491
Oct.	83,151	94,029	0	July	637,977	857,761	64,577	67,191
Nov.	266,733	314,577	0	Aug.	1,245,395	1,467,011	4,525	12,429
1st Qtr.	486,318	546,962	0	1st Qtr.	3,893,366	4,561,186	84,655	114,111
Dec.	177,310	190,508	0	Sept.	798,349	1,046,108	21,936	29,934
Jan.	70,481	96,489	0	Oct.	4,818	141,142	14,876	32,860
Feb.	145,926	157,106	0	Nov.	196,948	318,012	14,817	20,315
2nd Qtr.	393,717	444,103	0	2nd Qtr.	1,000,115	1,505,262	51,629	83,109
Mar.	7,498	27,487	0	Dec.	404,334	538,177	78,462	89,895
Apr.	87,050	99,854	188	Jan.	946,916	1,102,450	120,235	132,798
May	438,329	443,685	95	Feb.	493,961	624,453	197,133	206,396
3rd Qtr.	532,877	571,026	283	3rd Qtr.	1,845,211	2,265,080	395,830	429,089
June	312,460	313,099	0	Mar.	738,623	902,746	284,257	300,785
July	185,817	186,291	0	Apr.	632,074	833,943	218,521	232,344
Aug.	519,655	520,236	0	May	498,445	802,958	330,055	336,989
4th Qtr.	1,017,932	1,019,626	0	4th Qtr.	1,869,142	2,539,647	832,833	870,118
Total	2,430,844	2,581,717	283	Total	8,607,834	10,871,175	1,364,947	1,496,427
1977/78				1977/78				
Sept.	97,920	100,788	0	June	2,368,640	2,764,183	740,077	750,825
Oct.	482,174	505,782	0	July	412,910	853,478	129,463	151,280
Nov.	60,677	97,097	0	Aug.	569,880	1,019,874	65,239	78,558
1st Qtr.	640,771	703,667	0	1st Qtr.	3,351,430	4,637,535	934,779	980,663
Dec.	75,411	96,626	0	Sept.	243,812	473,873	122,581	137,312
Jan.	158,735	183,155	0	Oct.	28,317	239,542	99,251	111,619
Feb.	421,573	436,495	0	Nov.	482,820	650,891	168,296	175,801
2nd Qtr.	655,719	716,276	0	2nd Qtr.	754,949	1,364,306	390,128	424,732
Mar.	236,524	283,308	0	Dec.	839,755	938,042	175,350	187,530
Apr.	156,639	168,200	196	Jan.	712,903	913,625	108,038	116,324
May	133,843	145,851	24	Feb.	250,900	431,801	143,408	161,229
3rd Qtr.	527,006	597,359	220	3rd Qtr.	1,803,558	2,283,468	426,796	465,083
June	83,059	90,792	0	Mar.	241,366	457,093	118,171	129,606
July	188,531	194,522	10,231	Apr.	69,881	225,945	121,018	135,023
Aug.	302,798	304,310	11,101	May	221,767	505,948	95,055	110,756
4th Qtr.	574,388	589,624	21,332	4th Qtr.	533,014	1,188,986	334,244	375,385
Total	2,397,884	2,606,926	21,552	Total	6,442,951	9,474,295	2,085,947	2,245,863

See footnotes at end of table.

Continued--

Table 13--Corn, sorghum, barley, and oats imports, 1975/76 to date 1/--Continued

Year and month	Corn		Sorghum	Year and month	Barley		Oats	
	Grain only	Total			Grain only	Total	Grain only	Total
	Bushels				Bushels			
1978/79				1978/79				
Sept.	80,998	82,019	0	June	276,896	532,672	127,847	137,213
Oct.	11,397	21,149	0	July	986,064	1,418,338	37,885	47,913
Nov.	42,821	54,334	0	Aug.	234,024	548,660	23,378	32,299
1st Qtr.	135,216	157,502	0	1st Qtr.	1,496,984	2,499,670	189,110	217,425
Dec.	59,339	72,321	0	Sept.	40,043	255,486	32,927	44,496
Jan.	243,704	260,550	0	Oct.	110,994	429,614	25,408	32,598
Feb.	1,039	50,782	0	Nov.	825,557	1,049,732	25,151	34,041
2nd Qtr.	304,082	383,653	0	2nd Qtr.	976,594	1,734,832	83,486	111,135
Mar.	103,947	116,395	0	Dec.	971,916	1,281,034	39,165	51,008
Apr.	69,498	76,740	0	Jan.	797,988	1,134,539	60,200	71,444
May	122,910	130,212	1,890	Feb.	384,319	650,039	57,616	67,459
3rd Qtr.	296,355	323,347	1,890	3rd Qtr.	2,154,223	3,065,612	156,981	189,911
June	47,909	49,367	0	Mar.	899,926	1,274,511	80,120	87,131
July	278,155	280,696	0	Apr.	447,587	845,535	67,809	74,249
Aug.	90,816	94,387	0	May	737,200	1,117,318	47,728	67,072
4th Qtr.	416,880	424,450	0	4th Qtr.	2,084,713	3,237,364	195,657	228,452
Total	1,152,533	1,288,952	1,890	Total	6,712,514	10,537,478	625,234	746,923
1979/80				1979/80				
Sept.	67,261	70,547	17	June	508,172	956,165	66,902	75,963
Oct.	60,135	91,870	33	July	1,053,302	1,401,581	32,700	53,911
Nov.	87,671	96,674	0	Aug.	184,716	853,786	103,339	112,444
1st Qtr.	215,067	259,091	50	1st Qtr.	1,746,190	3,211,532	202,941	242,318
Dec.	44,485	67,828	0	Sept.	146,405	480,704	81,605	103,334
Jan.	49,000	64,908	0	Oct.	481,803	755,918	45,908	61,834
Feb.	72,887	93,576	0	Nov.	511,546	736,945	54,732	57,802
2nd Qtr.	166,372	226,312	0	2nd Qtr.	1,139,754	1,973,567	182,245	222,970
Mar.	121,254	129,375	0	Dec.	1,046,665	1,322,822	50,978	64,850
Apr.	4,185	15,705	1,802	Jan.	702,837	977,405	48,718	56,241
May	74,202	84,856	0	Feb.	245,660	680,313	46,740	58,823
3rd Qtr.	199,641	229,936	1,802	3rd Qtr.	1,995,162	2,980,540	146,436	179,914
June	11,404	16,394	0	Mar.	958,739	1,536,331	68,318	91,744
July	20,221	26,082	394	Apr.	174,456	658,919	68,142	88,969
Aug.	108,026	112,586	0	May	1,151,699	1,476,137	108,118	122,956
4th Qtr.	139,651	155,062	394	4th Qtr.	2,284,894	3,671,387	244,578	303,669
Total	720,731	870,401	2,246	Total	7,166,000	11,837,026	776,200	948,871
1980/81				1980/81				
Sept.	174,580	251,525	17	June	620,387	1,007,100	208,364	217,350
Oct.	62,982	91,027	0	July	475,033	897,820	99,739	117,566
Nov.	54,852	119,771	7,143	Aug.	198,458	613,721	138,041	150,113
1st Qtr.	292,414	462,323	7,160	1st Qtr.	1,293,878	2,518,641	446,144	485,029
Dec.	815	14,058	0	Sept.	576,818	994,834	103,180	114,358
Jan.	981	41,791	0	Oct.	418,748	716,432	78,330	92,721
Feb.	1,471	117,558	1,429	Nov.	272,608	649,066	37,899	44,456
2nd Qtr.	3,267	173,407	1,429	2nd Qtr.	1,268,174	2,360,332	219,409	251,535
Mar.	43,305	114,750	1,125	Dec.	616,398	971,698	68,867	73,711
Apr.	1,810	41,432	16	Jan.	405,615	753,860	48,185	63,723
May	503	56,863	0	Feb.	502,852	786,383	72,464	90,183
3rd Qtr.	45,618	213,045	1,141	3rd Qtr.	1,524,865	2,511,941	189,516	247,617
June	407,509	418,284	39	Mar.	687,319	1,176,303	67,501	75,690
July	48,187	60,912	0	Apr.	388,038	662,947	100,117	105,706
Aug.	51,275	57,174	16	May	702,898	975,666	109,205	128,927
4th Qtr.	506,971	536,370	55	4th Qtr.	1,778,255	2,814,916	276,823	310,323
Total	848,270	1,385,145	9,785	Total	5,865,172	10,205,830	1,131,892	1,294,504

See footnotes at end of table.

Continued--

Table 13--Corn, sorghum, barley, and oats imports, 1975/76 to date 1/--Continued

Year and month	Corn		Sorghum	Year and month	Barley		Oats	
	Grain only	Total			Grain only	Total	Grain only	Total
	Bushels				Bushels			
1981/82				1981/82				
Sept.	47,232	50,064	0	June	610,314	807,773	100,775	117,252
Oct.	54,527	85,484	0	July	338,217	528,962	65,137	86,099
Nov.	8,426	71,390	0	Aug.	160,069	369,781	53,075	60,145
1st Qtr.	110,185	206,938	0	1st Qtr.	1,108,600	1,706,516	218,987	263,496
Dec.	158,826	231,084	167	Sept.	318,906	648,411	76,882	83,979
Jan.	321	32,702	0	Oct.	181,471	437,924	60,349	69,425
Feb.	118	105,527	15	Nov.	647,471	896,666	70,277	81,798
2nd Qtr.	159,265	369,313	182	2nd Qtr.	1,147,848	1,983,001	207,508	235,202
Mar.	1,063	116,202	199	Dec.	892,812	1,086,699	60,553	70,180
Apr.	4,900	20,978	0	Jan.	780,039	989,703	30,724	43,110
May	34,328	54,210	106	Feb.	844,258	1,052,933	31,463	40,939
3rd Qtr.	40,291	191,390	305	3rd Qtr.	2,517,109	3,129,335	122,740	154,229
June	217,319	249,153	6,389	Mar.	487,592	690,770	41,105	67,490
July	29,526	45,153	0	Apr.	983,354	1,276,341	336,288	344,204
Aug.	89	6,720	9,873	May	631,815	824,440	557,422	572,517
4th Qtr.	246,934	301,026	16,262	4th Qtr.	2,102,761	2,791,551	934,815	984,211
Total	556,675	1,068,667	16,749	Total	6,876,318	9,610,403	1,484,050	1,637,138
1982/83				1982/83				
Sept.	57,841	83,885	5,440	June	1,706,202	1,890,855	173,860	192,633
Oct.	36,755	63,827	38,834	July	1,602,675	1,808,382	311,531	322,304
Nov.	153,521	184,648	3,969	Aug.	578,914	869,862	157,066	186,560
1st Qtr.	248,117	332,360	48,243	1st Qtr.	3,887,791	4,569,099	642,457	701,497
Dec.	52,888	81,987	2,673	Sept.	271,038	520,052	42,950	67,955
Jan.	5,346	25,718	0	Oct.	118,788	375,818	41,249	48,694
Feb.	383	20,320	0	Nov.	901,290	1,166,105	69,839	82,915
2nd Qtr.	58,617	128,025	2,673	2nd Qtr.	1,291,116	2,061,975	154,038	199,564
Mar.	52,592	116,099	24	Dec.	210,376	359,493	80,919	101,512
Apr.	4,472	34,644	0	Jan.	411,890	602,902	327,193	343,005
May	29,196	49,197	0	Feb.	573,023	702,910	346,452	361,453
3rd Qtr.	86,260	199,940	24	3rd Qtr.	1,195,289	1,665,305	754,564	805,970
June	72,972	79,436	29	Mar.	695,950	855,026	688,400	846,946
July	1,489	8,400	0	Apr.	748,297	869,229	441,625	461,343
Aug.	21,394	29,572	0	May	532,160	644,747	830,870	849,348
4th Qtr.	95,855	117,408	29	4th Qtr.	1,976,407	2,369,002	1,960,895	2,157,637
Total	488,849	777,733	50,969	Total	8,350,603	10,665,381	3,511,954	3,864,668
1983/84				1983/84				
Sept.	187,378	224,236	55	June	984,175	1,076,280	1,352,013	1,374,965
Oct.	74,362	103,908	0	July	697,624	811,948	4,040,293	4,067,425
Nov.	135,991	181,386	0	Aug.	613,639	872,632	3,759,037	3,776,309
1st Qtr.	397,731	509,530	55	1st Qtr.	2,295,438	2,760,860	9,151,343	9,218,699
Dec.	10,484	58,924	0	Sept.	406,495	681,755	2,494,421	2,511,830
Jan.	301,147	361,028	0	Oct.	152,380	432,289	2,066,649	2,107,494
Feb.	238	164,021	0	Nov.	30,350	257,914	1,517,183	1,551,431
2nd Qtr.	311,869	583,973	0	2nd Qtr.	589,225	1,371,958	6,078,253	6,170,755
Mar.	55,570	310,958	0	Dec.	636,688	805,125	1,224,336	1,262,960
Apr.	421,092	460,456	0	Jan.	305,982	470,695	1,379,602	1,388,291
May	9,899	205,026	0	Feb.	105,250	246,267	3,637,066	3,665,607
3rd Qtr.	486,561	976,440	0	3rd Qtr.	1,047,920	1,522,087	6,241,004	6,316,858
June	134,071	176,922	9	Mar.	292,509	445,810	5,560,632	5,580,005
July	368,517	372,316	141,963	Apr.	418,999	581,084	1,940,376	1,958,505
Aug.	8,062	15,913	0	May	401,076	404,011	943,825	961,346
4th Qtr.	510,650	565,151	141,972	4th Qtr.	1,112,584	1,430,905	8,444,833	8,499,856
Total	1,706,811	2,635,094	142,027	Total	5,045,167	7,085,810	29,915,433	30,206,168

See footnotes at end of table.

Continued--

Table 13--Corn, sorghum, barley, and oats imports, 1975/76 to date 1/--Continued

Year and month	Corn		Sorghum	Year and month	Barley		Oats	
	Grain only	Total			Grain only	Total	Grain only	Total
	Bushels				Bushels			
1984/85				1984/85				
Sept.	116,290	127,399	0	June	920,819	1,054,291	305,312	322,345
Oct.	260,438	317,134	0	July	722,362	883,625	1,469,282	1,490,031
Nov.	345,944	440,702	0	Aug.	1,023,658	1,165,980	217,465	234,276
1st Qtr.	722,672	885,235	0	1st Qtr.	2,666,839	3,103,896	1,992,059	2,046,652
Dec.	41,045	134,862	120,673	Sept.	284,510	466,491	3,771,243	3,786,897
Jan.	41,925	147,551	0	Oct.	276,438	505,461	3,449,893	3,462,452
Feb.	0	81,696	0	Nov.	300,744	591,477	1,485,364	1,494,579
2nd Qtr.	82,970	364,109	120,673	2nd Qtr.	861,692	1,563,429	8,706,500	8,743,928
Mar.	15,777	93,686	0	Dec.	1,640,951	1,899,683	4,119,279	4,138,000
Apr.	9,264	38,751	0	Jan.	358,752	618,802	4,035,973	4,095,972
May	824,177	936,859	0	Feb.	356,654	688,930	4,017,603	4,092,731
3rd Qtr.	849,218	1,069,296	0	3rd Qtr.	2,356,357	3,207,415	12,172,855	12,326,703
June	60,875	944,203	0	Mar.	537,365	905,566	3,857,568	3,900,423
July	1,428	39,177	0	Apr.	939,773	1,166,350	5,170,327	5,257,192
Aug.	15,836	135,868	0	May	60,460	160,312	1,728,469	7,008,343
4th Qtr.	78,139	1,119,248	0	4th Qtr.	1,537,598	2,232,228	10,756,364	16,165,958
Total	1,732,999	3,437,888	120,672	Total	7,422,486	10,106,968	33,627,778	39,283,241
1985/86				1985/86				
Sept.	8,086	33,974	0	June	340,425	588,237	1,728,933	1,757,614
Oct.	314,654	350,199	0	July	251,910	478,428	1,889,404	1,931,401
Nov.	540,018	600,046	1,429	Aug.	61,653	345,756	825,818	834,833
1st Qtr.	862,758	984,219	1,429	1st Qtr.	653,988	1,412,421	4,444,155	4,523,848
Dec.	121,966	258,092	0	Sept.	109,312	347,927	1,288,425	1,304,864
Jan.	374,481	483,279	0	Oct.	872,324	1,087,159	1,256,991	1,264,610
Feb.	456,976	540,101	0	Nov.	339,674	591,311	1,672,252	1,678,864
2nd Qtr.	953,423	1,281,472	0	2nd Qtr.	1,321,310	2,026,397	4,217,668	4,248,338
Mar.	369,991	416,011	0	Dec.	592,242	689,112	3,210,457	3,232,191
Apr.	623,207	662,745	630	Jan.	528,661	935,239	3,264,356	3,284,460
May	1,212,047	1,240,983	0	Feb.	1,413,559	1,589,598	2,394,906	2,418,051
3rd Qtr.	2,205,245	2,319,739	630	3rd Qtr.	2,534,462	3,213,949	8,869,719	8,934,702
June	1,765,143	1,774,942	0	Mar.	261,745	443,882	2,336,953	2,366,047
July	2,994,897	3,082,335	797	Apr.	385,235	616,253	3,574,782	3,591,060
Aug.	1,116,694	1,139,076	0	May	1,088,551	1,276,845	3,795,409	3,822,076
4th Qtr.	5,876,734	5,996,353	797	4th Qtr.	1,735,531	2,336,980	9,707,144	9,779,183
Total	9,898,160	10,581,783	2,856	Total	6,245,291	8,989,747	27,238,686	27,486,071
1986/87				1986/87				
Sept.	311,213	332,783	6,329	June	1,296,495	1,501,548	5,325,371	5,345,316
Oct.	66,792	107,949	0	July	15,140	223,046	1,841,943	1,868,602
Nov.	333,201	353,750	33	Aug.	19,469	210,558	1,537,423	1,559,704
1st Qtr.	711,206	794,482	6,362	1st Qtr.	1,331,104	1,935,152	8,704,737	8,773,622
Dec.	66,353	131,009	0	Sept.	75,927	307,474	846,095	879,869
Jan.	85,979	134,935	0	Oct.	31,578	207,980	1,262,426	1,292,827
Feb.	14,207	52,622	86	Nov.	926,059	1,193,914	2,695,161	3,342,153
2nd Qtr.	166,539	318,566	86	2nd Qtr.	1,033,564	1,709,368	4,803,682	5,514,849
Mar.	29,812	63,602	0	Dec.	173,536	310,750	1,241,736	1,261,139
Apr.	400,056	428,391	0	Jan.	392,962	681,307	3,981,067	4,020,146
May	19,009	30,652	0	Feb.	625,953	772,737	3,994,932	4,027,553
3rd Qtr.	448,877	522,645	0	3rd Qtr.	1,192,451	1,764,794	9,217,735	9,308,838
June	326,401	339,131	0	Mar.	1,808,103	1,888,079	2,277,619	2,300,061
July	32,223	48,591	197	Apr.	508,133	591,606	3,401,071	3,434,844
Aug.	71,486	471,582	0	May	792,379	849,842	3,951,545	3,988,454
4th Qtr.	430,110	471,582	197	4th Qtr.	3,108,615	3,329,527	9,630,235	9,723,359
Total	1,756,732	2,107,275	6,645	Total	6,665,734	8,738,841	32,356,389	33,320,668

See footnotes at end of table.

Continued--

Table 13--Corn, sorghum, barley, and oats imports, 1975/76 to date 1/--Continued

Year and month	Corn		Sorghum	Year and month	Barley		Oats	
	Grain only	Total			Grain only	Total	Grain only	Total
	Bushels				Bushels			
1987/88				1987/88				
Sept.	130,361	151,725	0	June	683,655	895,759	3,730,421	3,760,272
Oct.	354,333	373,790	24	July	195,998	448,601	1,717,932	1,735,424
Nov.	77,145	101,481	15	Aug.	220,222	434,668	1,541,932	1,582,741
1st Qtr.	561,839	626,997	39	1st Qtr.	1,099,875	1,779,029	6,990,285	7,078,437
Dec.	246,126	298,521	0	Sept.	1,061,243	1,396,496	1,712,779	1,744,204
Jan.	126,012	167,032	0	Oct.	926,329	1,222,581	1,270,484	1,372,822
Feb.	332,569	388,773	19	Nov.	876,498	1,209,707	5,106,952	5,148,944
2nd Qtr.	704,707	854,325	19	2nd Qtr.	2,864,070	3,828,784	8,090,215	8,265,970
Mar.	593,592	683,203	12	Dec.	1,146,248	1,384,778	2,537,116	2,566,987
Apr.	662,637	739,543	50	Jan.	1,846,528	2,038,574	4,086,315	4,154,507
May	113,606	140,762	0	Feb.	1,318,218	1,605,421	9,167,026	9,213,156
3rd Qtr.	1,369,835	1,563,509	62	3rd Qtr.	4,310,994	5,028,773	15,790,457	15,934,651
June	347,181	376,601	0	Mar.	1,163,560	1,280,709	6,426,933	6,482,646
July	257,479	275,042	0	Apr.	986,537	1,063,805	3,701,098	3,737,802
Aug.	169,701	207,314	7,229	May	876,452	961,089	4,721,106	4,756,988
4th Qtr.	774,361	858,958	7,229	4th Qtr.	3,026,549	3,305,603	14,849,137	14,977,436
Total	3,410,742	3,903,789	7,350	Total	11,301,488	13,942,189	45,720,094	46,256,494
1988/89				1988/89				
Sept.	135,657	177,913	0	June	1,596,106	1,667,685	5,680,015	5,754,224
Oct.	287,023	308,058	3,673	July	930,207	1,008,540	2,276,583	2,361,750
Nov.	140,579	233,514	0	Aug.	317,223	403,351	4,298,356	4,475,052
1st Qtr.	563,259	719,485	3,673	1st Qtr.	2,843,536	3,079,576	12,254,954	12,591,026
Dec.	25,234	173,241	0	Sept.	240,729	346,130	2,059,442	2,409,485
Jan.				Oct.	402,245	537,821	3,995,388	4,269,540
Feb.				Nov.	1,523,621	1,621,439	5,834,991	6,239,648
2nd Qtr.				2nd Qtr.	2,166,595	2,505,390	11,889,821	12,918,673
Mar.				Dec.	490,420	545,301	4,696,591	5,248,922
Apr.				Jan.				
May				Feb.				
3rd Qtr.				3rd Qtr.				
June				Mar.				
July				Apr.				
Aug.				May				
4th Qtr.				4th Qtr.				
Total				Total				

1/ Corn includes grain only (yellow dent corn, other), seed, and cornmeal. Sorghum is grain only. Barley includes grain only barley for malting, other), pearl barley, milled and malting. Oats include grain (hulled or unhulled), unhull oats fit and unfit for human consumption, and oatmeal fit for human consumption.

Source: Bureau of the Census, U.S. Department of Commerce.

Table 14--Grain protein feeds: Production, exports, and stocks by months, United States, 1970-88

Year	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Total
						1,000 short tons							
Corn gluten feed and meal:													
Production--													
1970	112.7	157.5	144.1	141.3	133.1	122.7	154.2	139.1	162.6	157.1	148.1	147.8	1720.3
1971	153.4	165.0	130.5	126.1	131.7	141.5	162.7	151.1	165.0	158.9	155.8	155.9	1797.6
1972	155.9	169.9	163.4	155.5	154.6	157.0	159.9	180.8	180.2	178.5	183.8	218.2	2057.7
1973	175.5	202.7	173.3	172.4	174.2	153.7	202.2	178.4	187.2	171.3	168.8	177.7	2137.4
1974	188.7	191.0	172.4	182.6	203.1	192.3	197.0	193.7	215.7	203.5	196.1	205.6	2341.7
1975	213.1	227.9	203.1	185.9	208.6	196.1	200.3	224.3	214.6	220.0	209.4	226.5	2529.8
1976	237.6	213.8	218.0	193.6	185.0	201.9	236.3	242.4	239.9	243.6	218.8	255.9	2686.8
1977	247.8	251.6	217.8	224.6	215.3	226.7	259.2	247.0	270.0	274.2	276.1	279.3	2989.6
1978	278.7	286.0	243.3	249.3	208.7	222.1	289.1	237.8	318.3	300.7	287.7	287.6	3209.3
1979	295.7	331.5	317.7	308.7	297.1	294.8	289.3	281.4	272.3	280.6	292.1	262.8	3524.0
1980	271.7	307.0	281.0	286.7	278.7	262.6	324.0	295.9	366.4	374.2	356.2	324.4	3728.8
1981	342.9	319.0	319.2	310.6	312.5	299.5	372.1	349.3	351.0	362.7	352.3	388.2	4079.3
1982	384.1	351.0	401.6	336.7	325.3	358.8	386.6	397.4	387.0	434.9	397.9	455.9	4617.2
1983	442.0	436.9	407.3	399.1	382.9	326.2	516.7	548.8	507.1	471.2	517.8	495.7	5451.7
1984	450.0	445.1	454.0	461.6	284.6	410.2	507.3	492.9	553.6	538.3	558.1	554.5	5710.2
1985	527.4	436.1	383.9	398.6	437.0	430.2	451.7	467.9	481.2	518.3	539.8	521.3	5593.4
1986	502.6	507.2	459.2	465.0	489.8	452.8	527.3	505.7	511.5	529.6	548.6	533.7	6033.0
1987	522.5	517.2	443.9	508.2	461.5	473.6	551.9	528.7	579.9	564.9	561.7	637.6	6351.7
1988													
Exports (feed and meal)--													
1975	110.4	79.5	71.0	111.1	79.0	88.5	89.0	116.6	96.1	94.5	88.9	79.4	1104.0
1976	83.3	113.9	96.4	121.2	110.8	56.7	138.1	214.5	113.7	108.8	118.3	141.6	1417.3
1977	324.7	146.9	173.4	79.1	183.2	117.8	128.8	178.4	94.5	182.6	180.3	123.1	1912.9
1978	209.4	69.3	185.0	184.2	105.1	127.3	148.8	199.4	165.6	327.7	143.6	198.1	2063.5
1979	177.8	246.3	157.7	205.3	197.4	207.1	231.0	163.1	302.1	227.2	192.0	222.4	2529.4
1980	361.5	239.6	190.8	266.4	210.4	201.2	299.4	362.2	195.5	189.6	301.4	291.9	3109.9
1981	212.9	350.0	237.7	220.5	187.1	194.0	297.9	322.8	320.5	205.9	303.5	229.7	3082.5
1982	212.8	280.0	294.3	297.0	295.5	362.6	355.2	532.7	275.4	303.5	317.1	257.0	3783.1
1983	386.8	304.7	312.6	259.0	410.9	263.5	497.8	330.2	221.1	301.8	366.6	384.8	4039.8
1984	266.4	244.3	428.7	283.3	279.5	217.9	398.9	348.2	273.2	302.5	242.0	357.1	3642.0
1985	347.5	405.9	347.1	306.6	397.9	386.7	439.3	388.4	280.7	321.7	351.5	456.7	4430.0
1986	426.4	360.9	357.2	490.9	492.3	327.1	519.3	420.5	398.4	346.3	350.9	267.6	4757.7
1987	431.1	490.9	385.1	437.8	314.9	339.2	519.6	393.0	405.3	336.0	323.4	339.1	4715.4
1988	532.7	402.6	590.8										
Brewers' dried grains:													
Production--													
1970	29.0	27.8	25.1	27.2	26.8	24.9	32.1	32.1	32.4	36.0	34.9	32.0	360.3
1971	30.1	28.3	24.9	27.2	26.4	28.2	31.9	32.7	34.8	35.8	34.3	33.2	367.8
1972	31.1	28.0	24.2	23.0	26.3	26.0	30.4	30.9	34.0	31.8	35.6	36.5	357.8
1973	30.2	31.8	25.3	24.3	27.0	23.9	27.7	29.1	33.2	31.8	35.4	32.4	352.1
1974	27.0	26.7	24.1	23.1	26.1	23.1	25.0	32.0	32.0	35.9	36.4	31.7	343.1
1975	30.4	31.5	22.6	26.3	25.0	25.2	16.7	23.6	26.1	30.4	31.2	33.4	322.4
1976	28.3	26.0	18.8	19.6	21.4	19.3	28.3	29.5	28.3	30.9	29.6	23.7	303.7
1977	20.4	21.3	18.3	19.9	20.2	18.5	24.2	25.8	25.7	27.8	27.6	29.4	279.1
1978	23.7	19.9	17.1	20.7	21.4	24.9	30.3	28.2	29.3	31.7	27.5	30.4	305.1
1979	26.9	28.2	22.0	22.1	25.6	25.0	28.7	29.5	31.1	28.9	34.2	31.1	333.3
1980	32.8	24.3	21.2	24.6	24.6	23.7	28.9	27.9	30.6	30.3	29.8	29.8	328.5
1981	23.4	23.0	18.4	19.6	21.1	21.6	23.3	21.0	21.9	25.1	25.0	23.4	266.8
1982	19.8	18.2	14.8	15.8	19.0	16.1	16.6	21.6	20.4	20.0	20.5	17.6	220.4
1983	13.5	10.3	9.8	9.8	11.1	10.2	13.9	13.3	12.3	15.4	16.1	17.1	152.8
1984	10.1	11.9	9.5	12.0	13.6	12.1	13.9	14.5	14.8	14.6	14.0	13.2	154.2
1985	12.1	11.7	10.1	11.0	11.4	11.9	11.7	12.7	13.7	14.3	13.4	13.4	147.4
1986	12.7	10.1	10.0	11.7	13.6	12.7	13.8	13.6	15.3	16.3	16.2	14.7	160.7
1987	10.3	11.5	8.8	11.7	12.6	11.9	12.8	10.7	11.4	11.1	9.9	10.5	133.2
1988	9.5	9.5	9.4										
Stocks, end of month--													
1970	5.1	5.3	6.9	5.3	5.3	5.1	4.7	4.1	4.2	5.2	6.8	6.4	
1971	5.6	4.7	3.9	3.8	3.8	3.6	3.5	4.1	4.0	5.8	6.4	7.0	
1972	5.6	3.8	3.0	3.1	2.4	2.6	2.7	3.1	2.4	2.5	3.0	3.0	
1973	2.0	2.5	2.0	2.3	2.4	2.6	2.0	2.4	3.0	3.8	3.5	3.4	
1974	2.9	2.9	2.7	2.4	2.3	2.0	2.7	2.0	2.2	2.0	2.2	2.7	
1975	2.5	2.5	2.6	1.5	1.5	1.3	1.2	1.5	2.5	2.2	2.3	2.4	
1976	2.2	2.2	1.9	1.4	1.4	0.8	1.4	1.3	3.1	3.1	3.3	1.9	
1977	1.4	1.3	1.6	1.0	1.7	1.4	1.9	1.8	1.1	2.0	2.9	1.7	
1978	1.8	1.3	0.9	1.0	1.0	1.4	1.0	1.1	1.4	1.0	1.9	0.9	
1979	1.0	1.4	1.0	0.6	0.8	1.0	1.2	1.7	2.0	2.1	1.9	1.8	
1980	1.7	0.9	1.3	0.8	1.1	1.2	1.4	2.0	2.0	1.9	1.3	1.0	
1981	1.2	1.0	1.3	0.5	1.1	1.0	1.4	1.2	1.5	1.3	1.1	1.5	
1982	0.8	1.4	0.9	0.8	1.4	0.7	0.6	0.6	0.9	0.6	0.7	0.7	
1983	0.4	0.3	0.2	0.4	0.4	0.5	0.8	0.7	0.7	0.9	1.0	0.8	
1984	1.0	0.9	0.7	0.8	0.6	0.5	0.8	1.1	0.9	1.1	0.9	0.9	
1985	1.1	0.7	0.6	0.7	0.5	0.6	0.6	0.7	0.7	0.8	0.7	1.0	
1986	0.7	0.4	0.7	0.3	0.4	0.5	0.4	0.3	0.6	0.6	0.6	0.7	
1987	0.4	0.3	0.1	0.1	0.2	0.3	0.2	0.2	0.5	0.4	0.3	0.2	
1988	0.4	0.1	0.1										

Continued

Table 14--Grain protein feeds: Production, exports, and stocks by months, United States, 1970-88--Continued

Year	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Total
						1,000 short tons							
Distillers' dried grains:													
Production--													
1970	31.8	38.0	35.8	33.5	33.7	35.6	36.3	28.7	28.6	27.8	26.6	26.0	382.4
1971	31.5	34.6	33.7	35.2	37.8	36.4	38.6	36.9	37.6	35.8	27.9	22.0	408.0
1972	27.4	31.9	33.2	33.5	35.9	36.9	41.6	40.5	41.9	40.9	31.2	31.7	426.6
1973	31.7	33.8	36.9	37.3	50.5	37.8	41.7	42.1	42.4	37.2	33.9	31.7	457.0
1974	30.7	33.6	29.4	28.1	28.0	22.2	28.9	30.0	32.2	28.6	24.0	25.8	341.5
1975	29.8	38.0	32.6	32.5	32.2	29.1	35.5	37.2	32.5	38.7	28.2	28.6	394.9
1976	32.6	30.4	31.5	26.9	30.0	29.0	36.5	33.4	30.0	29.6	29.7	32.4	372.0
1977	37.6	35.6	29.9	33.5	33.5	30.1	28.4	32.4	37.4	38.6	33.3	34.0	404.3
1978	33.3	36.7	41.3	40.5	36.4	39.2	45.1	47.4	49.3	46.0	39.5	40.2	495.0
1979	35.1	35.0	56.4	40.3	38.4	40.6	47.7	44.9	49.2	41.9	30.3	33.3	493.1
1980	36.5	42.5	42.7	43.5	43.8	40.7	50.8	48.0	39.9	34.1	33.3	39.0	494.8
1981	41.9	41.8	39.1	43.4	35.1	35.7	40.6	34.3	40.7	47.7	41.3	45.1	486.7
1982	50.9	61.9	62.2	66.3	62.9	55.3	65.9	61.6	69.3	69.8	62.1	62.6	750.8
1983	50.8	61.6	29.9	44.3	53.9	54.2	57.6	56.4	56.9	55.8	51.6	50.8	623.8
1984	65.7	90.3	83.0	86.7	85.5	81.5	97.5	88.5	94.1	76.5	77.5	76.3	1003.1
1985	83.1	110.4	101.8	101.2	103.6	95.7	110.5	107.3	107.7	108.7	107.4	109.3	1246.7
1986	112.9	109.2	108.6	117.6	112.7	102.2	111.8	104.5	113.9	109.0	111.9	109.1	1323.4
1987	109.3	116.0	100.6	112.8	113.8	110.6	108.7	105.2	121.2	131.5	100.5	120.7	1350.9
1988	118.8	129.6	122.5										
Stocks, end of month--													
1970	1.9	2.2	2.2	1.7	1.6	2.4	1.5	1.2	1.6	0.9	1.1	2.0	
1971	1.7	3.3	4.1	2.3	2.2	2.5	2.0	2.7	2.9	1.9	1.8	1.0	
1972	1.2	1.1	1.3	1.6	1.8	1.9	2.1	4.2	2.7	3.8	2.8	1.7	
1973	3.4	3.2	2.9	3.4	2.0	3.0	4.9	3.6	2.9	4.4	1.7	1.3	
1974	3.0	1.0	1.7	1.4	1.5	2.3	2.8	4.0	5.3	5.4	4.7	4.8	
1975	4.1	4.1	4.5	1.9	2.1	2.4	3.9	7.0	4.3	4.9	2.5	2.6	
1976	2.2	4.5	3.4	2.2	1.4	2.0	2.6	2.9	2.8	2.2	3.8	4.0	
1977	4.7	3.8	1.7	1.7	2.9	4.3	3.6	5.0	4.3	2.0	2.0	1.4	
1978	1.8	2.0	2.2	2.8	2.0	2.3	3.4	4.4	4.0	3.4	2.1	3.6	
1979	2.9	4.9	2.7	2.1	3.8	3.1	5.6	4.5	4.3	2.7	2.0	4.1	
1980	2.7	3.2	4.1	2.3	4.4	4.3	5.2	3.2	2.6	3.9	3.0	3.2	
1981	3.8	4.1	3.9	2.4	2.9	3.2	4.2	4.2	3.4	5.5	5.0	4.6	
1982	5.5	4.1	4.2	4.5	5.6	4.6	7.4	7.3	6.6	6.9	6.6	4.4	
1983	4.8	6.3	6.0	4.4	4.2	6.4	8.3	7.8	8.1	11.6	9.2	5.6	
1984	10.9	10.3	10.5	12.0	9.1	8.1	10.2	9.4	10.8	10.9	10.4	13.2	
1985	12.1	12.4	12.7	9.0	7.3	7.8	8.7	8.1	6.1	9.2	6.0	8.1	
1986	6.6	12.3	9.1	15.4	11.0	19.9	10.2	9.6	13.7	8.8	12.0	11.5	
1987	15.1	14.2	14.2	8.7	16.1	13.2	5.2	5.6	14.2	16.0	12.2	17.6	
1988	14.1	13.7	14.1										

Sources: Corn Refiners Association, Inc.
Livestock and Grain Market News, Agricultural Marketing Service, USDA.

Table 15--Feed grains and grain products used in the production of alcohol, distilled spirits, and beer, by months, 1975 to date 1/

Year	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Total
						1,000 bushels							
						Corn and corn products							
Distilled spirits and alcohol:													
1975	1,621	2,161	1,962	1,688	1,554	1,316	1,985	2,333	1,974	1,957	1,292	1,250	21,093
1976	1,511	2,072	1,632	1,274	1,464	1,607	2,022	2,004	1,959	1,756	1,415	1,613	20,329
1977	1,884	1,705	1,444	1,459	1,451	1,495	1,628	1,912	1,995	1,746	750	1,624	19,093
1978	1,682	1,962	2,121	2,120	1,849	1,928	2,168	2,274	2,399	2,217	907	1,539	23,166
1979	1,920	2,377	2,501	1,696	2,149	2,174	2,825	2,795	2,738	2,153	910	1,565	25,803
1980	1,737	2,110	1,836	1,903	2,441	2,297	2,949	2,775	2,234	1,801	1,593	2,055	25,731
1981	2,240	2,621	2,066	2,550	2,433	2,869	4,024	3,630	3,369	3,261	4,075	3,528	36,666
1982	4,829	6,291	6,007	6,443	6,188	5,654	6,029	4,584	5,565	5,955	5,135	4,985	67,665
1983	3,898	3,892	3,599	3,446	3,690	3,800	4,261	4,238	3,902	3,091	2,571	3,035	43,423
1984	3,532	5,395	5,299	5,150	5,294	5,262	6,033	5,403	4,568	5,950	6,385	5,640	63,911
1985	5,691	5,997	2,927	2,071	2,242	2,162	2,788	3,114	4,679	4,570	3,815	3,989	44,045
1986	4,501	4,994	4,568	4,797	4,618	4,376	4,775	4,536	4,756	4,614	4,334	4,288	55,158
1987	4,481	4,522	3,721	3,917	3,907	3,862	5,010	4,443	4,530	4,151	3,526	3,550	49,621
1988	3,932	4,781											
Beer:													
1975	4,069	3,598	3,258	3,651	3,435	3,259	4,234	4,503	5,369	5,584	4,875	4,728	50,563
1976	4,118	4,006	3,422	3,381	3,715	3,693	5,526	5,375	5,402	5,275	4,890	4,805	53,608
1977	3,900	3,679	3,644	3,793	3,960	3,904	4,555	4,708	4,788	5,017	4,655	4,892	51,495
1978	3,989	3,907	3,511	3,478	3,529	3,166	4,232	4,149	4,334	4,115	4,366	4,205	46,981
1979	3,547	3,546	3,191	2,991	3,463	3,786	4,049	4,011	4,376	4,335	4,627	4,353	46,275
1980	3,985	3,600	3,359	3,772	3,070	3,576	3,965	4,262	4,530	4,540	4,693	4,117	47,469
1981	3,586	3,547	2,959	3,102	3,389	3,447	4,015	3,998	4,178	3,677	3,829	3,878	43,605
1982	3,461	3,329	2,910	2,960	3,157	3,128	3,809	3,633	3,884	4,038	4,255	3,787	42,351
1983	3,421	3,166	2,872	2,362	3,180	3,408	4,049	4,309	4,235	3,963	3,994	3,569	42,528
1984	2,829	3,327	2,673	2,397	2,889	2,985	3,314	3,923	4,240	4,078	3,595	3,410	39,660
1985	3,220	3,259	2,649	2,498	3,191	3,157	3,469	3,929	4,120	3,838	3,769	3,110	40,209
1986	2,759	2,862	2,419	2,411	2,777	2,858	3,164	3,073	3,199	3,178	3,049	2,780	34,529
1987	2,734	2,362	2,213	2,103	2,620	2,671	2,948	3,384	3,258	3,212	2,714	2,672	32,890
1988	2,180	2,455											
Total distilled spirits and beer:													
1975	5,690	5,759	5,220	5,339	4,989	4,575	6,219	6,836	7,343	7,541	6,167	5,978	71,656
1976	5,629	6,078	5,054	4,655	5,179	5,300	7,548	7,379	7,361	7,031	6,305	6,418	73,937
1977	5,784	5,384	5,088	5,252	5,411	5,399	6,183	6,620	6,783	6,763	5,405	6,516	70,588
1978	5,671	5,869	5,632	5,598	5,378	5,094	6,400	6,423	6,733	6,332	5,273	5,744	70,147
1979	5,467	5,923	5,692	4,687	5,612	5,960	6,874	6,806	7,114	6,488	5,537	5,918	72,078
1980	5,722	5,710	5,195	5,675	5,511	5,873	6,914	7,037	6,764	6,341	6,286	6,172	73,200
1981	5,826	6,168	5,025	5,652	5,822	6,316	8,039	7,628	7,547	6,938	7,904	7,406	80,271
1982	8,290	9,620	8,917	9,403	9,345	8,782	9,838	8,217	9,449	9,993	9,390	8,772	110,016
1983	7,319	7,058	6,471	5,808	6,870	7,208	8,310	8,547	8,137	7,054	6,565	6,604	85,951
1984	6,361	8,722	7,972	7,547	8,183	8,247	9,347	9,326	8,808	10,028	9,980	9,050	103,571
1985	8,911	9,256	5,576	4,569	5,433	5,319	6,257	7,043	8,799	8,408	7,584	7,099	84,254
1986	7,260	7,856	6,987	7,208	7,396	7,234	7,940	7,609	7,956	7,792	7,384	7,068	89,687
1987	7,215	6,884	5,934	6,020	6,526	6,533	7,958	7,827	7,788	7,363	6,240	6,222	82,511
1988	6,112	7,236											
						Grain sorghum							
Distilled spirits and alcohol:													
1975	234	255	195	248	209	147	255	249	397	235	208	223	2,855
1976	252	277	224	201	212	214	200	212	246	237	245	225	2,745
1977	237	294	215	250	289	354	306	294	307	300	386	316	3,548
1978	308	363	369	368	366	320	375	353	347	296	331	349	4,145
1979	349	442	434	418	460	392	368	271	399	320	406	353	4,612
1980	331	379	415	399	199	275	379	340	380	381	357	370	4,205
1981	409	392	410	456	420	406	437	390	415	386	415	371	4,907
1982	269	231	378	389	356	355	241	264	299	347	322	253	3,704
1983	334	409	364	334	279	263	195	246	304	326	306	323	3,683
1984	362	1,311	1,207	1,503	1,085	835	1,117	1,110	943	516	474	523	10,986
1985	1,170	1,499	2,183	2,762	2,875	2,694	2,798	2,056	769	410	1,515	833	21,565
1986	467	315	370	423	519	363	360	471	421	337	444	318	4,808
1987	348	593	610	1,021	1,215	1,289	1,129	1,327	2,506	2,679	2,816	2,350	17,883
1988	2,161	2,816											

See footnote at end of table.

Continued--

Table 15--Feed grains and grain products used in the production of alcohol, distilled spirits, and beer, by months, 1975 to date--Continued

Year	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Total
						1,000 bushels							
						Barley and malt							
Distilled spirits and alcohol:													
1975	165	97	97	191	300	335	251	228	212	242	305	270	2,693
1976	263	147	173	209	231	193	212	227	246	332	293	287	2,813
1977	256	198	259	262	265	202	184	202	210	226	250	268	2,782
1978	228	127	240	269	289	321	340	256	294	335	352	363	3,414
1979	302	156	221	264	291	273	288	266	255	333	329	352	3,330
1980	222	118	180	195	241	164	230	320	297	358	345	321	2,991
1981	248	162	189	247	315	297	263	287	302	358	369	283	3,320
1982	235	199	185	455	309	274	225	252	292	315	288	248	3,277
1983	180	94	132	158	167	182	160	210	263	289	252	213	2,300
1984	105	56	110	162	216	240	167	192	194	180	156	182	1,960
1985	153	119	141	148	173	370	122	163	169	185	183	148	2,075
1986	127	95	77	114	140	117	115	161	167	253	225	200	1,792
1987	111	83	100	84	107	105	73	84	105	153	151	155	1,311
1988	119	93	118	152	185								
Beer:													
1975	12,060	12,266	11,173	10,265	9,516	8,798	9,318	9,677	9,536	8,430	10,322	11,418	122,779
1976	11,988	12,297	12,271	10,969	10,304	8,567	8,504	9,244	8,693	11,930	12,164	12,240	129,171
1977	12,671	11,982	11,103	9,595	9,448	9,244	8,902	9,950	9,832	12,355	12,170	12,656	129,908
1978	13,059	13,051	14,020	11,494	12,094	9,849	10,142	10,792	10,523	13,284	12,614	13,326	144,248
1979	13,106	13,293	13,119	11,450	12,014	10,689	10,483	11,100	12,061	12,978	13,242	14,035	147,570
1980	14,191	14,721	14,148	12,860	12,106	10,548	10,616	10,622	11,595	12,857	13,678	14,451	152,393
1981	14,194	14,356	13,466	11,806	11,319	9,852	10,056	12,234	11,232	12,814	13,193	13,259	147,781
1982	13,628	12,430	12,590	11,537	11,251	10,061	9,981	11,113	10,640	12,862	12,724	13,350	142,167
1983	13,427	13,027	13,068	10,778	10,779	9,670	9,031	10,526	10,925	13,008	12,289	13,632	140,160
1984	13,333	13,751	12,456	10,396	10,900	9,348	9,617	11,136	10,357	12,253	13,101	13,390	140,038
1985	12,880	12,597	11,646	10,367	11,040	9,363	9,578	11,568	11,082	11,925	12,967	12,855	137,868
1986	13,472	13,535	11,904	10,862	11,163	9,719	10,387	11,627	11,126	12,739	12,150	12,669	141,352
1987	12,781	12,273	11,905	11,329	10,455	9,054	9,935	11,155	11,467	12,396	12,856	13,123	138,730
1988	13,160	12,911	12,262	10,757	11,121								
Total distilled spirits and beer:													
1975	12,225	12,363	11,270	10,456	9,816	9,133	9,569	9,905	9,748	8,672	10,627	11,688	125,472
1976	12,251	12,444	12,444	11,178	10,535	8,760	8,716	9,471	8,939	12,262	12,457	12,527	131,984
1977	12,927	12,180	11,362	9,857	9,713	9,446	9,086	10,152	10,042	12,581	12,420	12,924	132,690
1978	13,287	13,178	14,260	11,763	12,383	10,170	10,482	11,048	10,817	13,619	12,966	13,689	147,662
1979	13,408	13,449	13,340	11,714	12,305	10,962	10,771	11,366	12,316	13,311	13,571	14,387	150,900
1980	14,413	14,839	14,328	13,055	12,347	10,712	10,846	10,942	11,892	13,215	14,023	14,772	155,384
1981	14,442	14,518	13,655	12,053	11,634	10,149	10,319	12,521	11,534	13,172	13,562	13,542	151,101
1982	13,863	12,629	12,775	11,992	11,560	10,335	10,206	11,365	10,932	13,177	13,012	13,598	145,444
1983	13,607	13,121	13,200	10,936	10,946	9,852	9,191	10,736	11,188	13,297	12,541	13,845	142,460
1984	13,438	13,807	12,566	10,558	11,116	9,588	9,784	11,328	10,551	12,433	13,257	13,572	141,998
1985	13,033	12,717	11,787	10,516	11,213	9,733	9,700	11,731	11,251	12,110	13,150	13,003	139,943
1986	13,599	13,630	11,982	10,976	11,304	9,835	10,502	11,788	11,292	12,993	12,375	12,869	143,144
1987	12,893	12,356	12,005	11,413	10,563	9,159	10,007	11,239	11,572	12,550	13,007	13,278	140,041
1988	13,279	13,004	12,380	10,909	11,306								

NA = Not available.
1/ Mostly for beverage but also includes some industrial alcohol and may include some fuel alcohol.

Source: Department of the Treasury, Bureau of Alcohol, Tobacco and Firearms.

Table 16--Hay: Production, harvested acreage, yield, prices received by farmers, and stocks

Year	Production			Harvested acreage	Yield per harvested acre	Season average price	Stocks	
	Alfalfa hay	Other	Total all hay				January 1	May 1
	1,000 tons			1,000 acres	Tons	$/ton	1,000 tons	
1970	75,573	51,396	126,969	61,467	2.07	26.10	89,365	24,056
1971	77,285	51,847	129,132	61,355	2.10	28.10	87,651	22,200
1972	78,226	50,339	128,565	59,680	2.15	31.30	89,445	25,472
1973	78,805	55,412	134,217	61,828	2.17	41.60	88,790	24,311
1974	74,368	52,016	126,384	60,195	2.10	50.90	93,159	25,353
1975	78,183	54,214	132,397	61,353	2.16	52.10	84,687	18,505
1976	69,960	50,165	120,125	60,377	1.99	60.20	86,411	25,541
1977	80,814	51,397	132,211	60,988	2.17	53.70	77,651	19,540
1978	87,294	56,523	143,817	62,113	2.32	49.80	92,136	24,184
1979	88,110	59,197	147,307	61,279	2.40	59.40	99,024	30,108
1980	79,963	50,777	130,740	58,870	2.22	71.00	107,707	33,192
1981	83,696	58,824	142,520	59,599	2.39	67.30	91,689	25,374
1982	88,385	60,856	149,241	59,812	2.50	69.30	99,160	24,981
1983	82,212	58,552	140,764	59,717	2.36	75.80	103,996	28,118
1984	90,105	60,543	150,648	61,445	2.45	72.70	89,280	20,148
1985	85,048	63,553	148,601	60,423	2.46	67.60	100,589	26,853
1986	91,552	63,977	155,529	62,419	2.49	1/ 59.32	121,734	26,698
1987	84,794	64,508	149,302	60,748	2.46	64.80	119,845	32,418
1988	69,282	57,535	126,817	65,559	1.93	NA	90,887	27,353

NA = Not available.
1/ Per program modification, hay stocks survey reference date has been changed from January 1 to December 1 beginning December 1, 1986.

Source: Agricultural Statistics Board, USDA.

Table 17--Hay: Average prices received by farmers, United States, by months, 1970-88 1/

Year	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Average 2/
	$/ton												
1970	23.50	22.40	22.10	22.50	23.30	23.90	24.40	25.00	25.40	25.80	26.00	26.10	26.10
1971	25.60	24.60	24.10	24.30	24.50	24.90	25.30	26.10	29.20	29.70	29.00	28.00	28.10
1972	31.10	30.90	28.50	29.30	29.80	30.30	31.00	33.00	34.60	35.40	35.40	33.90	31.30
1973	37.50	35.20	36.30	39.00	43.10	46.20	46.80	46.00	47.10	47.10	45.40	44.40	41.60
1974	54.00	47.70	48.20	51.10	51.90	51.50	50.30	50.70	50.10	49.30	49.70	52.40	50.90
1975	56.30	53.60	51.20	51.00	50.80	50.30	50.20	51.60	52.70	54.30	54.10	54.10	52.10
1976	64.10	59.60	59.00	58.70	60.80	60.10	59.00	59.00	60.90	62.70	63.90	63.20	60.20
1977	68.10	61.30	56.80	52.50	50.00	48.20	48.40	49.50	50.50	51.80	51.40	51.40	53.70
1978	55.30	51.20	49.20	49.00	47.80	47.10	46.40	47.30	48.90	50.70	50.20	49.90	49.80
1979	65.60	58.00	56.00	57.50	59.00	60.80	58.90	60.10	59.10	60.00	57.40	60.10	59.40
1980	69.30	65.10	67.00	67.20	71.90	77.20	75.00	74.80	72.80	72.50	69.80	68.20	71.00
1981	75.30	66.90	64.00	63.90	62.70	64.80	65.40	65.70	67.90	69.90	69.50	73.30	67.30
1982	77.50	69.60	66.10	65.00	66.80	67.10	68.70	68.60	70.30	73.20	69.90	74.00	69.30
1983	78.10	72.70	71.20	71.20	74.70	76.80	75.10	76.70	76.60	78.70	79.40	79.80	75.80
1984	82.50	76.10	72.40	70.40	70.70	73.10	71.40	73.40	73.00	73.10	72.20	72.50	72.70
1985	80.80	70.20	67.90	65.20	67.10	67.50	64.30	65.40	65.80	66.70	67.10	66.20	67.60
1986	66.70	61.00	58.80	58.20	57.60	57.90	56.00	57.70	56.10	58.50	59.20	64.10	59.32
1987	71.70	62.90	61.20	62.70	64.10	64.20	61.10	63.20	62.80	64.60	67.20	71.90	64.80
1988	80.90	76.80	83.10	83.10	85.50	86.80	87.50	89.90 3/	91.20				

1/ Prices reported for mid-month. 2/ U.S. season average prices weighted by marketings. 3/ Preliminary.

Source: Agricultural Prices, Agricultural Statistics Board, USDA.

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